Chapter 5

A COMPROMISE

SETTLEMENT

THE REAGAN NONPROLIFERATION POLICY:

Ronald Reagan entered the White House with the Tarapur fuel issue being one of the important tests as to how his new Administration would conduct U.S. nonproliferation policy.\(^1\) Despite strongly-worded requests from India that the United States release the second of the two shipments of fuel narrowly approved by Congress

in 1980,\(^2\) the Administration took its own time to gradually evolve its position on Tarapur as well as its nonproliferation policy. Initial actions such as providing a $3.2-billion military and economic aid package to Pakistan by waiving the Symington Amendment gave the impression of political expediency in policy and a lack of concern in halting the spread of weapons-related technology. But, slowly, the Administration's statements and actions began to reflect a new policy perspective and agenda in Washington. As it gained concrete shape, it became clear that the Reagan nonproliferation policy had certain continuity with the approaches of previous administrations, especially in treating nonproliferation as a "fundamental U.S. national security and foreign policy objective."\(^3\) But in some crucial respects, it differed sharply from the nonproliferation policy of the Carter Administration.

1. **Political and technical approaches to controlling proliferation were to be tied together.** Reagan and his advisers contended that the United States had to go to the political roots of the problem and, therefore, they recognized more explicitly

\(^2\) India's insistence that the fuel be shipped without further delay evoked a strong reaction in the United States, and one leading newspaper claimed India was "trying to blackmail us again". (Wall Street Journal, "India's Nuclear Blackmail" [editorial], February 10, 1981.)

the importance of reducing the incentives and motivations for proliferation. This contrasted with the heavy emphasis in the Carter policy on finding technical "fixes" to the problem. To the Reagan Administration, proliferation was less of an energy and fuel-cycle problem and more of a national security issue. The incentives to weaponize could be weakened by forging close political cooperation with "proliferation-problem" countries, rather than by imposing sanctions and cutting off nuclear ties, it was argued. Conventional arms transfers could alleviate security concerns of such nations and help reduce a key motivation for going nuclear. Implicit in this policy was the argument that even when technical capability had been achieved by a nation, the political exercise of that capability could be deterred.

2. Commercial interests of the domestic nuclear industry could not be sacrificed at the altar of nonproliferation. Carter had attempted to make the American nuclear power programme

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Despite such a policy justification, conventional arms exports are an essential element in the upkeep of the giant U.S. armament industry.
consistent with the larger nonproliferation goals by deferring commercial reprocessing and strengthening controls on the domestic nuclear industry. As part of the "psychological denuclearization" campaign, it also treated commercial nuclear power as an energy source of the last resort. But, in contrast, Reagan argued that the United States should be a world leader in commercial nuclear power technology and adopted an "activist" approach on the subject, promoting new American commercial nuclear power plants and lifting curbs on the civil plutonium economy. The reshaping of the U.S. nuclear export policy in response to India's 1974 explosion had gone too far, it was contended, because the new restrictions extended to America's closest allies and industrial partners and hurt the domestic nuclear industry. The Reagan policy, therefore, sought to ease some of the export controls in respect of U.S. allies, and the NRC was instructed to act expeditiously on export licences to such countries.

3. The United States should emphasize an institutional approach to proliferation in a multilateral setting rather than

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8 Reagan also approved a programme to use reprocessed plutonium from commercial power reactors in nuclear warheads. (Washington Post, "Atoms for Peace or War?" [editorial] reprinted in International Herald-Tribune, March 26, 1982.)

9 Pilat and Donnelly, The Reagan Administration Policy, pp. 97, 102.
invest its political capital in unilateral actions. The Reagan Administration worked hard to strengthen the patchwork international nonproliferation regime, which is built on the NPT, IAEA safeguards system and the "trigger list" of the Nuclear Suppliers' Group. Technological improvements in IAEA safeguards were emphasized\(^\text{10}\) as well as the importance of the Vienna-based Agency in policing global nuclear power activities.\(^\text{11}\) Reagan recognized that safeguards were essentially a technical means of verifying the political commitments of a nation, but not foolproof. The prevention of weapons-usable material diversion, therefore, required\(^\text{12}\): (i) greater intelligence collection and sharing among the members of the so-called London club;\(^\text{13}\) (ii) 

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\(^\text{11}\) Initially, however, there was dissent within the Administration on the effectiveness of the IAEA. A Pentagon study, warning against "undue reliance" on the Agency, spoke of the IAEA's "susceptibility to Third World and East Bloc politics, its lack of an intelligence capability and the limits of its scope and jurisdiction." (Seib and Emshwiller, "President Unveils Nuclear Arms Policy.") The same doubts about the effectiveness of the IAEA safeguards had been used by Israel as a justification earlier in bombing Iraq's safeguarded Osirak research reactor in June, 1981. The politics over IAEA's role surfaced again in September, 1982, when the United States temporarily withdrew from the agency's affairs to protest the rejection of credentials of the Israeli delegation by the IAEA General Conference. (Pilat and Donnelly, *The Reagan Administration Policy*, p. 94.) Subsequently, the White House concluded that the IAEA's role was critical to the nonproliferation regime and decided that the United States should play a major part in strengthening the Agency.

\(^\text{12}\) Chellaney, "Reagan Nonproliferation Policy."

\(^\text{13}\) Such intelligence gathering focuses on receiving "timely warnings" on weapons-related activities. The collected intelligence is fed to several agencies in the United States for analysis; these include the Lawrence Livermore National Laboratory,
bilateral and multilateral diplomatic, economic and military pressure on nuclear threshold and near-threshold countries;\(^{14}\) and (iii) a rigorous enforcement of nuclear export controls.

Nonproliferation was for the first time put on the superpower summit agenda by Reagan during his meetings with Mikhail Gorbachev.\(^{15}\) Until then, the two superpowers had worked privately -- almost secretly -- on nonproliferation issues, with their close cooperation on the subject dating back to the establishment of the NPT.

The nonproliferation regime is based on patent discrimination,\(^{16}\) but Reagan's policy went further: it sought to

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\(^{14}\) A White House fact sheet on nonproliferation had spoken ominously of the Reagan Administration's resolve to "consider the range of U.S. diplomatic, economic and national security tools to reduce the motivations of other nations to develop nuclear explosives." (United States International Communication Agency, White House Fact Sheet on Nonproliferation, Official Text, July 17, 1981.)

\(^{15}\) Nonproliferation issues have figured prominently in the superpower summit meetings since the INF agreement.

\(^{16}\) For a good Third-World perspective on this subject, particularly the use of safeguards for technological denial, see M. Zuberi, "Nuclear Safeguards: The Servitudes of Civilian Nuclear
create a sub-system of discrimination within a system of
discrimination. Some countries were exempted from
nonproliferation controls and some others were not. Generic
prior consent for reprocessing was offered to some countries and
not to others. The three most controversial proliferation-
related cases in the Reagan years were Japan, China and Pakistan.
A nuclear cooperation agreement was signed with China, which has
refused to sign the NPT or join the nonproliferation regime,
permitting Beijing to import American nuclear technology without
adequate safeguards.\footnote{Daniel Horner and Paul Leventhal, "The U.S.-China Nuclear Agreement: A Failure of Executive Policymaking and Congressional Oversight," The Fletcher Forum (Winter, 1987), pp. 105-122.} No safeguards were sought to be imposed
to prevent retransfer of U.S. technology by Beijing,\footnote{Ibid.} despite
reports of Chinese involvement in the Pakistani nuclear
programme.\footnote{China signed a bilateral nuclear cooperation agreement with
Pakistan in September, 1986, and Chinese scientists have reportedly
been visiting the Kahuta enrichment facility. According to one
account, "Pakistan's success owes much to Chinese help." (Foreign
Report, "Pakistan's Atomic Bomb," January 12, 1989, pp. 1-3.)} Japan was given a 30-year blanket authorization to
extract plutonium from U.S.-derived spent fuel; before the
authorization expires, Tokyo would have extracted more plutonium
than the amount jointly contained in the superpower nuclear
arsenals at the time of agreement.\footnote{Nuclear Control Institute, The New U.S.-Japan Agreement
(Washington, D.C.: Nuclear Control Institute, July, 1988).} In the third case,
Pakistan, nonproliferation goals were clearly made subservient to geopolitical interests.

Nevertheless, the Reagan Administration's contribution to the nonproliferation regime was substantial. The United States played a leadership role in making supplier nations further tighten their export controls and in expanding the net of the nonproliferation system to incorporate checks on delivery capabilities. The Administration worked more than two years in secretly drawing up a far more detailed "trigger list" that included additional items relating to ultracentrifuge enrichment and reprocessing technologies as well as non-nuclear "dual-use" materials like ultrahigh-strength aluminium. Reagan's National Security Decision Directive (NSDD-70) in November, 1982, led to an agreement among seven Western supplier nations on export controls on ballistic missile technology. A "trigger list" similar to the one on nuclear technology was prepared. This supplier "cartel" was eventually formalized as the Missile

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21 A second package of $4.2 billion followed the first aid package along with another waiver of nonproliferation law -- the Solarz Amendment.


Technology Control Regime (MTCR). Once again one of the major targets of such controls was India.

The Reagan policy objective to wield influence over countries of proliferation concern, however, drove the Administration to seek closer political cooperation with most of them. U.S. nonproliferation strategy had relied on "unilateral denial of nuclear materials as a form of leverage to prevent proliferation." Although Reagan did not totally discard this approach, he tried to soften it with political influence-peddling. According to one of his Administration's leading policymaker, former NRC Commissioner Richard T. Kennedy, U.S. nonproliferation policy had to "turn away from the 'unilateral' approach" of the Carter Administration to a "cooperative approach -- an approach in which we work together to reach agreement as to how our nuclear relations will be conducted." The thrust of the policy called for a subtle change from the stick to the

25 The Soviet Union, a member of the London club, did not join the MTCR when it was formed in April 1987. But it has agreed to cooperate with its members in controlling the spread of missile technology, and reports indicate that it might eventually join the missile club, too.

26 Gerard Smith and George Rathjens, "Reassessing Nuclear Nonproliferation Policy," Foreign Affairs (Spring, 1981), p. 886. According to the authors, there has always been a basic conflict in U.S. policy "between denial of access to nuclear materials and a companion emphasis on assuring access to reactor fuel so that recipients would rely on U.S. supply and be less motivated to acquire facilities and weapons-usable materials from other sources."

carrot without abandoning the policy of technology denial. Inducements were to be offered without substantially eroding nonproliferating goals or enhancing a country’s technical capabilities.

The idea was to influence nuclear developments in "problem" nations by gradually enmeshing in a network of controls and economic, political and arms agreements. The Administration authorized or acquiesced in nuclear exports involving third parties to some "problem" nations as an apparent means of gaining political leverage. Permission was given for the re-transfer of 142 tonnes of U.S.-origin heavy water from West Germany to Argentina; tacit approval was provided for nuclear fuel sale to South Africa from a European utility that in effect allowed Pretoria to escape a five-year U.S. fuel embargo; and Brazil was allowed to escape penalties for buying European nuclear fuel.28 In South Asia, the Administration sought closer cooperation with both Pakistan and India. India was sold a supercomputer and technology for its Light Combat Aircraft (LCA). The manner in which Reagan pursued his nonproliferation objectives was officially explained this way:

"The struggle we are waging is not on the battlefield. It goes on in the quiet of diplomatic chanceries, at meetings of technical experts, and in safeguards laboratories. Success is measured not in

terms of territory liberated or new allies gained, but rather in terms of confidence established, restraints voluntarily accepted, and destabilizing military options foregone."  

The handling of the Tarapur dispute by the Reagan Administration has to be seen against this background.

FINDING A WAY OUT:

The sentiment in Congress as well as the Republican Party platform plank had made it amply clear that there would be no further U.S. fuel supply to Tarapur. The public scrutiny that the Indian nuclear policy and programme received each time a fuel licence application had been discussed in the NRC or Congress also helped to underline the unsavoury nature of the fuel supply arrangement for India. Soon after Reagan came to power, India came to believe that both countries should seek an amicable nuclear divorce\(^{30}\)-- an idea that Washington had accepted with alacrity. At about the same time, New Delhi publicly announced its plans to reprocess the Tarapur spent fuel without U.S.

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India had until then expressed its right to reprocess the fuel only if the United States reneged on its fuel supply commitments, and this was the first indication of plans to begin reprocessing without waiting for a "joint determination" or a formal termination of the 1963 agreement. The announcement,\(^3\) made after the Power Reactor Fuel Reprocessing Plant (PREFRE) at Tarapur began operating with RAPS irradiated fuel, was intended to undergird Indian needs to develop a substitute mixed-oxide fuel for Tarapur using reprocessed plutonium. Reprocessing was also required to help overcome serious storage problems at Tarapur since the station's original storage capacity had been for barely five years of plant operation.\(^3\) But the Indian statement only provoked further anger in the U.S. Congress and spurred demands that the Reagan Administration deal sternly with India.\(^4\)

Each country seemed to suggest that the idea of a friendly disengagement had originally come from the other side.\(^5\) It was,


\(^3\) This was made by BARC officials to Western journalists who had been invited to Trombay.


however, evident that both sides wanted to scrap what had become a contention-filled agreement, but that neither wanted to be the one to actually bury it. What was called for was a joint burial, or in the words of External Affairs Minister P.V. Narasimha Rao, a "decent burial" -- a task that both countries knew from the beginning would be a difficult and messy one. Fettered by the 1978 Nuclear Non-Proliferation Act, the U.S. government was clearly unable to carry out its contractual obligations. But, nonetheless, it did not want safeguards on Tarapur to be lifted or to lose its control over the spent fuel. So the primary concern of the United States in a possible disengagement was how to retain safeguards on Tarapur. However, the U.S. decision to explore ways to end the agreement had by itself caused dismay in Congress and some government agencies.36 For India, as Prime Minister Indira Gandhi explained, there were three important considerations involved in a disengagement37: (i) Tarapur had to continue generating electricity; (ii) bilateral relations with the United States should not suffer; and (iii) national interest had to be preserved. Expecting a negotiated termination of the agreement would take time, the Indian government reduced Tarapur's power production level in order to conserve fuel.38


38 Ibid.
Three rounds of negotiations were held between the two countries in 1981 to resolve the dispute. The Indians were led by AEC Chairman Homi N. Sethna and Foreign Secretary Eric Gonsalves. The American side was headed by James Malone, Assistant Secretary of State for Oceans and International Scientific and Environmental Affairs.

1. *The April round.* The talks, in Washington, were the first formal discussions on Tarapur between the two countries since Reagan was appointed president and provided an opportunity to the Indians to know first-hand the Administration's thinking on the subject. The main conclusion that emerged from the discussions was that the Administration, in its first major nonproliferation move, had taken a policy decision not to supply any more fuel to Tarapur and end the agreement with India. It told the Indian delegation that it had been "painted into a corner" by the Carter Administration decisions and the NNPA, which provided no leeway for continuing the fuel supply arrangement.\(^{39}\) The Administration also believed that Congress would in any case not allow any further fuel export.\(^{40}\) The Indian Parliament was informed that the United States had suggested during the talks a friendly parting of ways and that it


\(^{40}\) Ibid.
was clear that "nothing can save this agreement". The conditions for terminating the agreement, however, were a matter of sharp dispute in the talks. A separate meeting between Secretary of State Alexander M. Haig Jr. and Gonsalves, before the Indian team returned home, also failed to make any headway in resolving the dispute. The two sides, however, agreed to continue discussions.

2. The July round. The next round of negotiations were held in New Delhi, with both sides exchanging views on the modalities of phasing out the agreement. But like in the previous exercise, no agreement could be reached on the terms of a nuclear divorce by mutual consent. The negotiations centred on the safeguarding of the spent fuel. The American side insisted that India retain safeguards, provide a permanent no-explosive-use pledge on U.S.-supplied material, and agree not to transfer spent fuel to a


44 Such safeguards should continue at "all times", that is in perpetuity, according to an unsigned U.S. diplomatic communication known as a "nonpaper" (a device used to ensure maximum confidentiality) that was handed to Sethna by Malone in April. Such a demand, of course, went beyond the terms of the 1963 agreement.
third country. The Indian side, however, remained firm that safeguards could not remain in effect since the United States' failure to meet its contractual commitments was forcing the termination of the pact. In the words of Sethna, once the agreement was scrapped, "nothing survives". But the Americans argued that, once accepted, international safeguards had never been lifted by any country and drew a parallel with India's own decision to continue IAEA inspections at RAPS despite a Canadian pullout. But an Indian government spokesman reacted to this by saying: "We don't wish to commit the same mistake twice." It was contended that what Washington was seeking was a one-sided disengagement from the terms of the agreement: the termination of U.S. supply obligations but retention of Indian obligations to keep safeguards. Despite the failure to make progress on the key issues, both sides agreed to hold one more round of divorce proceedings. India, concerned that the United States might be deliberately engaged in delaying tactics in order to exacerbate


46 The idea that the United States should try to phase out the agreement if India agreed, as it did in the case of RAPS, to maintain IAEA safeguards on Tarapur was first raised by Christopher Van Hollen, formerly U.S. deputy assistant secretary of state for Near Eastern and South Asian affairs. See Christopher Van Hollen, "Nuclear Relations with India: Time For a New Beginning?", Christian Science Monitor, March 31, 1981.

47 Ibid., pp. 2-3.

Tarapur's fuel problem and thereby bring additional pressure on New Delhi to accept the American conditions, made it known that the next round would have to be the final one.

3. The November round. Visible tension accompanied the third round of negotiations. The Indian team was sent to Washington with a brief that if the Americans continued to adopt stalling tactics, it should let the Reagan Administration know that India would thereafter consider the agreement unilaterally broken by U.S. refusal to adhere to the Indo-American schedule for fuel deliveries. The Hyderabad fuel fabrication complex had run out of U.S.-supplied enriched uranium for Tarapur and would have had to close down if new supplies did not arrive within a few months. India also made it clear that it did not have to compromise. We are abiding by the agreement and wish to know whether the United States will abide by its contractual obligations." The U.S. Administration, on the other hand, had come under pressure not to permit Indian reprocessing of the spent fuel under any circumstances and to consider the possibility of buying back the irradiated fuel. But besides the logistical problems and costs in bringing the spent fuel to the


50 Indian DAE spokesman quoted in Nucleonics Week, November 12, 1981.

51 External Affairs Ministry spokesman quoted by United News of India, November 6, 1981.
United States, there was opposition from environmentalists to the return of the fuel. NRC Commissioner Gilinsky, still waging a campaign against any supplies for Tarapur, told the Administration that if it could not get the spent fuel back, it should not let "the Indians out of their safeguard obligations" under the agreement. Washington took the line that safeguards were "an essential part of our global policy" and there could be no compromise on that. The rigidity of the rival positions on the safeguards issue, therefore, again blocked progress being made at the third round, and it appeared that the two countries were headed for a bitter and damaging nuclear divorce.

The three rounds of discussions had taken place against the backdrop of growing U.S.-Pakistani military and strategic ties and concerns in New Delhi over the ominous implications of those developments for long-term Indian security planning. These concerns had been accentuated by U.S. overtures and military assistance to China. It seemed to many policy analysts that a visible U.S. "tilt" towards Pakistan had re-emerged in a South Asian framework; apprehensions about a U.S.-China-Pakistan


axis revived in New Delhi. While Washington analysts saw weapons sales to Pakistan in the context of American global strategic interests in containing the Soviet Union, in New Delhi they were seen in terms of their effect on regional military balance. These developments had cast a shadow on U.S.-Indian efforts to disengage from their nuclear agreement. India had also been irritated by American reports, based on what was claimed to be intelligence information, saying New Delhi was preparing to carry out a second nuclear explosion at Pokharan. Further, the Administration had held up the export of several urgently needed replacement parts for Tarapur -- which was said to be in "serious disrepair" because of India's refusal to accept the American conditions for disengagement. Export licence applications for the parts, which included neutron flux monitors and a feed water sparger to replace a cracked unit, had been

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59 These reports appeared despite India's assurance to Washington that it had no plans at that time to carry out another PNE test. This confidential assurance was reportedly given by Gonsalves to Malone on April 16, 1981. (N. Ram, "U.S. Was Given Assurance Against Nuclear Blast," *Hindu* [Madras], February 21, 1982.)

60 *Nucleonics Week*, July 2, 1981, p. 3.
filed in November, 1980.\textsuperscript{61}

Following the collapse of the talks, it was widely believed that India would formally declare the United States to be in material breach of the agreement and then proceed to reprocess the spent fuel. These expectations had been reinforced by strong Indian statements before the third round of talks. After the third round of negotiations ended in Washington, Indian newspapers carried almost identical stories the same day\textsuperscript{62} saying External Affairs Minister P.V. Narasimha Rao was to inform Parliament that the Americans had "unilaterally abrogated" the agreement by refusing to supply fuel and as such India's obligations on safeguards had become "null and void".\textsuperscript{63} But no such official statement was made in Parliament. Instead, Indian officials said they would await the separate visits of Malone and Secretary of State Haig to New Delhi in December before moving

\textsuperscript{61} Ibid.

\textsuperscript{62} These reports appeared to be based on an official briefing, although no attribution to sourcing was given.

further on the matter. However, for different reasons, both visits were cancelled. And yet there was no sign of an Indian statement formally announcing the end of the agreement. The only substantial official comment that came after weeks of wait was a statement by Mrs. Gandhi that, among other things, "we have also to look at our overall bilateral relations with USA." 

The apparent Indian reluctance to carry out the threatened unilateral termination of the agreement was linked to pressure from the Reagan Administration, which in its nonproliferation policy had pledged to use all levers to keep "proliferation-problem" countries in check. It became known that the Reagan Administration had threatened sanctions against India if it unilaterally freed itself from the provisions of the agreement. India was told the Administration could invoke legislation stipulating a cutoff of U.S. Export-Import Bank credit to a nation which materially violated or abrogated IAEA safeguards or an agreement for cooperation. India, in that case, would lose


65 Press Information Bureau, Consultative Committee Meeting of December 22, 1981 (cited in an earlier footnote).


67 A 1977 amendment of the U.S. Export-Import Bank Act incorporated a major nonproliferation provision. Under the provision, the Secretary of State can report "certain undesirable foreign nuclear actions" to the Bank after which the Bank may not
access to International Monetary Fund and World Bank lending, it was told. The United States also threatened to work with its allies to cut contributions to the Aid India Consortium.

At about the same time, it also became known that the United States had formally suggested that India accept a new foreign fuel supplier within the safeguards framework of the 1963 agreement. The Americans believed that bringing in a substitute fuel supplier was the only way to ensure that the IAEA safeguards remain in force at Tarapur. The other option of terminating the agreement would have resulted in the lifting of the safeguards as the Indian government spokesmen had repeatedly emphasized. In its efforts to pressure India to accept a new source of fuel supply, the United States had offered to find a

approve any financial transaction involving a nation engaged in such activity unless the President certifies it would be in the national interest to do so. The triggering actions include violation, abrogation or termination of IAEA safeguards or of a bilateral agreement for cooperation with the United States. (Warren H. Donnelly, The Nuclear Non-Proliferation Act of 1978, Public Law 95-242: An Explanation, Congressional Research Service report [Washington, D.C.: Library of Congress, October, 1978], pp. 26-27.)

As discussed in Chapter 3 of this study, there is a U.S law under which the government can direct American executive directors in the World Bank and IMF to consider, while taking decisions, that a particular country had detonated a nuclear explosive device or refused to sign the NPT or both.

Malone acknowledged that the idea of an alternative fuel supplier came from the United States and was developed by his Bureau of Oceans and International Environmental and Scientific Affairs. (Rob Laufer, "Interview with Malone: Defence of Policy and Assessment of 'Hot Spots',' Nucleonics Week, August 19, 1982, p. 2.)
European exporter to take its place in the existing fuel supply arrangement.\textsuperscript{70}

Sethna and Gonsalves, however, did not favour the idea of a new foreign fuel supplier, especially because it would have meant a continuation of the agreement with all its attendant controversies. America's holding up of the export of some essential replacement parts for Tarapur, even at the risk of causing a major safety problem,\textsuperscript{71} had underlined the problems associated with the agreement. The DAE, which had invested heavily in a mixed-oxide fuel project, believed it could produce the substitute fuel for Tarapur. The government leaders in New Delhi, however, were not too sure about the successful development of such fuel.\textsuperscript{72} In addition, they had to take into account the real possibility of a further deterioration in U.S.-Indian relations if India broke free from the agreement. The U.S. arming of Pakistan had underscored the need for Indian diplomacy to play an assertive role in making U.S. policymakers understand its regional implications and in trying to halt the

\textsuperscript{70} N. Ram, "Non-Performing Indo-U.S. Agreement: Albatross Round Tarapur's Neck," Hindu (Madras), March 9, 1982.

\textsuperscript{71} J.N. Parimoo, "U.S. Denies Vital Spare Parts for Tarapur," Times of India (New Delhi), March 13, 1982. The report quoted an NRC official as saying that there were potential safety risks at Tarapur if the neutron flux monitors were not exported in time. The neutron flux monitors, containing tiny amounts of highly enriched uranium, are used in the reactor core to determine local neutron flux.

\textsuperscript{72} Based on personal interviews with MEA and DAE officials.
flow of such weapon systems that could change the military balance on the subcontinent. India, therefore, could not afford further isolating itself from Washington.\textsuperscript{73} Despite the attraction of mixed-oxide fuel technology, Indian scientists had to overcome major technical challenges. Firstly, it was "very difficult and expensive to change horses midstream," as Ramanna put it, when the DAE had never planned developing mixed-oxide technology.\textsuperscript{74} Secondly, although BARC had the fabricating know-how, it was a formidable task for the nuclear scientists and engineers to go from laboratory work to industrial-scale production of mixed-oxide. According to Sethna, it would have taken 14 to 16 months to produce the first consignment of mixed-oxide fuel from the day a decision had been made to reprocess the Tarapur spent fuel.\textsuperscript{75} But many others believed the project would have take much longer since all other BARC projects have had a history of long gestation periods.\textsuperscript{76}

After the heat generated by the three rounds of

\textsuperscript{73} Gonsalves had underlined the importance of the United States to India by telling American correspondents in an interview: "We are prepared to be as pro-Western as you will permit us to be. But every time we try to make an opening, you kick us in the teeth. It is quite difficult." (Stuart Auerbach, "U.S. Snubs India’s Moves Toward West, Aide Says," \textit{International Herald Tribune}, April 14, 1981.)

\textsuperscript{74} Quoted in \textit{NuclearFuel}, February 16, 1981, p. 10.

\textsuperscript{75} Ibid., p. 10.

\textsuperscript{76} Feroze R. Chandra, "Mixed-Oxide Substitute for Tarapur: A Far Cry from Lab to Reactor," \textit{The Daily} (Bombay), February 15, 1982.
negotiations, everything fell quiet on the Tarapur front. There was hardly any news\(^{77}\) from the Indian government or from Washington. In an eight-month period before Mrs. Gandhi visited Washington in 1982, the only official comments were brief statements in Parliament by a minister complaining about the inordinate delay in the licensing the export of spare parts\(^{78}\) and by the Prime Minister about India having received "stray feelers" from some countries offering to take over the U.S. fuel supply role.\(^{79}\) Concerns in Parliament that the fuel-starved Tarapur might have to shut down were set at rest by a statement that the station's operation at low power levels could possibly stretch the existing fuel stock up to 1984.\(^{80}\) The statement inadvertently backed up the conclusion of an earlier NRC analysis that the second of the two fuel shipments approved by Congress in 1980 could be delayed because it would not be required by Tarapur until much later. That analysis, however, had reported that the continuous operation of the Tarapur reactors at the average recorded level of 70 per cent efficiency required the release of

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\(^{77}\) *Times of India* (New Delhi), "Govt. Mum on Future of Tarapur Pact," February 13, 1982.

\(^{78}\) Government of India, Department of Atomic Energy, Unstarred Question, Rajya Sabha, Written Statement of Minister of State for Science and Technology C.P.N. Singh, July 23, 1982.

\(^{79}\) Government of India, Department of Atomic Energy, Unstarred Question, Rajya Sabha, Written Statement of Prime Minister Indira Gandhi, March 18, 1982.

\(^{80}\) Government of India, Department of Atomic Energy, Starred Question, Rajya Sabha, Written Statement by Prime Minister Indira Gandhi, July 14, 1982.
the second shipment by February, 1982.\textsuperscript{81}

THE FRENCH TAKEOVER:

U.S.-Indian interest in a settlement of the dispute revived on the eve of Mrs. Gandhi's official visit to Washington in late July, 1982. Although Indian officials remained tight-lipped on how far the government would go to seek a compromise settlement, clear indications emerged before the Prime Minister left New Delhi that India had accepted the concept of an alternative fuel supplier. That opened the way to a resolution of the Tarapur crisis. The dispute had been souring bilateral relations, and the decision to seek a compromise settlement was a calculated political move by Reagan and Mrs. Gandhi to improve ties between the world's largest democracies. The two sides had decided to clear away a major irritant, raise their sights above strategic disagreements over the U.S. arming of Pakistan, and find new channels for expanding trade and technology transfer.\textsuperscript{82} It seemed the United States under the Reagan presidency was willing to open a new chapter in relations with India. Until then, the

\textsuperscript{81} U.S. Nuclear Regulatory Commission, "Comparison of Fuel Requirements for the Indian Fuel Fabrication Facility and Tarapur Reactors," Memorandum of January 22, 1980, from Edward J. Hanrahan to Chairman Ahearne and Commissioners Gilinsky, Kennedy, Hendrie and Bradford; and Memorandum of June 5, 1979, from B.J. Snyder to Ahearne et al.

\textsuperscript{82} The\_Economist (London), "The Shy Lady Who Came to Dinner," August 7, 1982, p. 47.
Reagan Administration's policy had centred on "cultivating and strengthening" Pakistan, while its attitude towards India "appeared to alternate between smouldering resentment and tired indifference."83 For the first time, signs emerged that the United States was willing to recognize and respect Indian primacy on the subcontinent.

The Indian government's liberalization of imports and easing of controls on the private sector had opened new opportunities for American businesses and pleased an administration that had been singing the virtues of the free market. Against the background of divergent Indo-U.S. strategic perceptions, a liberalized Indian economic policy promised to "supply the long-missing element of shared interest between the two countries."84 The irony was that despite the dislike of Reagan's policies, India's emerging economic policy contained "large elements of Reaganomics."85 The U.S. Administration provided a tacit welcome to the new Indian policy by voting, on the eve of Mrs. Gandhi's visit, for the second tranche of India's loan from the IMF -- the largest the Fund had ever provided to any country. This contrasted with America's abstention on the first round and its


implicit threat to block Indian borrowing from multilateral financial institutions if New Delhi cancelled the 1963 agreement and lifted Tarapur safeguards.

The stage had been set in Washington for an "amicable" accord on Tarapur between Reagan and Mrs. Gandhi, who had struck a personal rapport during their first meeting at Cancun. The exact terms of the compromise on Tarapur apparently had already been worked out before Mrs. Gandhi arrived in Washington. After two rounds of discussions between Mrs. Gandhi and Reagan, it became clear the visit had turned into a love fest.\(^8^6\) A beaming Reagan and Mrs. Gandhi announced a series of steps to upgrade bilateral relations which included increased scientific, cultural and economic cooperation and a resolution of the nuclear fuel controversy.\(^8^7\) A written U.S. government statement said: "The two governments, after consulting with the Government of France, have reached a solution which envisages the use of French-supplied low enriched uranium at Tarapur while keeping the 1963 agreement for peaceful nuclear cooperation in effect in all other respects, including provision for IAEA safeguards. This solution will serve nonproliferation interests and meet India's need for


nuclear fuel for the Tarapur power station."\(^{88}\) This was to be an unusual "divorce": the withdrawing party had insisted that the partnership continue but with a new substitute, surrogate partner of its choice.

An exchange of notes between the United States and India followed by a short agreement between India and France formalized this settlement -- about four months after it was announced. The exchange of diplomatic notes recorded mutual waivers of rights enshrined in the 1963 agreement on fuel supply and use. In the U.S. note to India, America agreed to relinquish its right to be the exclusive fuel supplier to India. It said it waived its "right [under Article II] to have the Government of India purchase from the Government of the United States ... as needed, all requirements ... for enriched uranium for ... the Tarapur Atomic Power Station," and to have "Tarapur ... operated on no other special nuclear material than that made available by the United States."\(^{89}\) The note also said the 1963 agreement, the exchange of letters of September 16 and 17, 1974,\(^{90}\) and the 1971


\(^{89}\) Diplomatic note from the United States to India, November 30, 1982. Copy of the note obtained by the author.

\(^{90}\) In this exchange of letters, India pledged to use special nuclear material sold to it or produced at Tarapur exclusively for the needs of the station. (See, Appendix F, Letter of September 17, 1974, from Homi N. Sethna to Dixy Lee Ray.)
trilateral safeguards agreement "shall remain in effect in all other respects." India's note to the United States similarly waived its "right to have the Government of the United States ... sell to ... India ... all requirements" for Tarapur's fuel. It also provided that India thereafter would "obtain all its requirements for enriched uranium" for Tarapur from France, and that the agreement for cooperation and the 1971 trilateral safeguards accord "shall remain in effect in all other respects." This exchange of notes was preceded by an Indo-French agreement under which France pledged to sell 20 tonnes of low enriched uranium to Tarapur every year. According to the agreement:

"Within the framework of the 1963 agreement for cooperation between India and the United States, France in lieu of USA has agreed to supply enriched uranium for the Tarapur plant. India shall use the special nuclear material supplied by France or by-products derived from it only for peaceful purposes and research in and production of electricity energy as had been provided for in the said agreement.

"This commitment shall be subject to the safeguards provided for in the 1963 cooperation agreement between India and USA and in the 1971 trilateral agreement between USA, India and IAEA.

"During the life of the 1963 agreement, France and India shall consult with a view to agreeing on the arrangements to ensure the implementation as may be necessary of the provisions of the preceding paragraphs."

91 Diplomatic note from India to United States, November 30, 1982. Copy of the note obtained by the author.

92 This agreement was signed in New Delhi by Sethna and the French Ambassador on November 26, 1982. (See Appendix O.)

93 Ibid.
Basically, what the French-Indian accord and the U.S.-Indian exchange of notes did was to waive one key provision of the 1963 agreement for cooperation. Rest of the agreement was said to stand untouched. However, despite the weeks of legal scrutiny it received both in India and the United States, the compromise settlement left some important issues unresolved. Did France as the new exclusive fuel supplier take over the rights and duties of the United States? Or did the United States merely delegate the duties to France and retain the rights under the 1963 agreement? Could the United States claim prior consent rights over spent fuel of French origin at Tarapur? The United States interpreted the settlement as making "clear that there must be a joint determination [on reprocessing] and the United States has not agreed to such a determination or delegated the authority to agree to such a determination. No reprocessing of Tarapur spent fuel in India may thus occur without United States agreement, which has not been given." Mrs. Gandhi, however, made it clear that India retained its "right to reprocess without further consultation" and that this was made explicit to


Washington during her visit. The compromise also did not resolve other questions, including the issue of supply of replacement parts to Tarapur (which the Indo-French accord did not even address). This study will examine the unresolved issues in the next chapter.

The deal, nonetheless, represented a major step in ending the acrimony and bitterness over fuel supply arrangements since the 1974 Indian explosion. The United States found a way of getting round the NNPA and the legislation's requirement for fullscope safeguards without losing out on safeguards at Tarapur. India, by agreeing to accept France as the fuel seller, eliminated American pressure as well as a searing political weapon that the U.S. Congress and the executive branch had jointly fashioned for use against it; at the same time, India ensured the continued operation of the Tarapur reactors.

The compromise settlement was welcomed by many analysts and lawmakers in both countries. Senator Daniel P. Moynihan said: "Our own relations may now proceed on an amicable basis, because the Tarapur reactors will remain safeguarded and subject to inspection; there is not to be any reprocessing of fuel and the

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consequent obtaining of plutonium.⁹⁷ Another former U.S. ambassador to India, Robert F. Goheen, said India has been the "more generous party, giving up more than the U.S."⁹⁸ But the deal also immediately came under attack in both countries as a sellout or a surrender to the demands of the other side.⁹⁹ In the United States, questions also were raised whether the arrangement circumvented American nonproliferation policy.¹⁰⁰ To what extent did each side compromise? Was there any victor? What are the long-term implications of the compromise settlement? These questions are also examined in the next chapter.

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⁹⁷ Congressional Record, Senate (July 29, 1982), pp. S9363-9365.

