CHAPTER – III

EVOLUTION OF NON-PROLIFERATION POLICY

APPROACHES AND EMERGENCE OF

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The Pokhran-I nuclear test of India had a major impact on the US nuclear non-proliferation policy approaches. Indian nuclear test was great educator to American nuclear non-proliferation policy makers. It was recognised that there were threshold nuclear weapon states and that emergence of nuclear weapons capability was inevitable. Consequently, American policy makers had to change their nuclear non-proliferation policy goal from prevention of nuclear proliferation to slowing of proliferation in order to cope with the destabilizing effects. Accordingly new approaches, the most important one being the sanctions approach, were designed. Many national and international non-proliferation sanction regimes were established by statutes in the absence no focused and specific statutory provisions for imposing sanctions for achieving non-proliferation objectives prior to the India’s “Peaceful Nuclear Explosion”.

Indian nuclear test dealt a fatal blow to the ambitious US “Atoms for Peace” policy that volunteered to provide nuclear fuel reliably, rejecting the pre-1954 approach of secrecy and denial of original Atomic Energy Act. But India’s nuclear test weakened that reliability, when the US started imposing more and more stringent guidelines on exporting nuclear material, equipments and technology. And, non-proliferation policy approach shifted from “influence derived from cooperation” to influence through punishment of non-proliferation sanctions. Though, the “Atoms for Peace” policy of 1954 had a overt goal of providing assistance to any state in help setting up and running civil-nuclear installation, the main hidden agenda of the US was to present in the host country legally under the collaboration programme to monitor the growth and trend of

nuclear programme and influence the host country if it is found to be in the direction of diverting nuclear fissile material for weapons programme. Since this approach of "influence" through "cooperation" failed in India's case, the US adopted the approach of influencing through punishment of sanctions by establishing non-proliferation sanction regimes. India's nuclear test was the primary reason for the emergence of sanctions approach in the US non-proliferation policy.

Complacency on the working of the NPT and the IAEA safeguards marked Nixon's non-proliferation policy, as his Administration believed them to be sufficient enough to contain the nuclear proliferation. It was felt in the American strategic community that the Indian nuclear test shattered the confidence of or complacency about non-proliferation regime\(^2\) that was constructed so laboriously in the 1950s that includes Atoms for Peace programme and its IAEA safeguards and Atomic Energy Act of 1954 and in the 1960s that includes NPT. India's nuclear test shocked the US at a time when the US was perceiving that its nuclear cooperation agreement will prevent through influence India from conducting any nuclear test even if it has any intention and the capability to do so and provoked non-proliferation debate in the US executive and legislative branch to adopt a radical shift from the present nuclear export policy. The shift was from export of nuclear material with permission to spent fuel reprocessing for producing plutonium for peaceful use to export of nuclear material with denial of reprocessing permission in order to prevent production of plutonium, which could be diverted for making explosive device. Nuclear export control guidelines were tightened to plug loopholes in the existing nuclear export guidelines. The Ford and Carter Administrations unilaterally denied also the nuclear material to any nation if that nation did not adhere to the US guidelines on peaceful use.

The threats to the non-proliferation regime stability were perceived to have come from the ambiguities of 'peaceful' uses in its nuclear agreement with India. In the second half of the 1970s, the US tried to plug the "loopholes" in the 1963 agreement by unilaterally imposing new conditions on the export of nuclear material, equipments and technology. Not only this; the US made stringent the criteria to have nuclear cooperation with any other countries.\(^3\)

The threats of nuclear proliferation were reinforced also by the trend in the power position of the United States both inside and outside the purview of the nuclear issue. The growing strong competition, particularly in the light water reactor sale of the nuclear market from Europe shattered the US monopoly over the nuclear market causing essentially loosing grip over its non-proliferation approach of influencing nuclear behaviour of the customer countries. Further, France, Germany, Britain, the Netherlands, Japan and South Africa had broken the US near monopoly in spent fuel enrichment services by beginning projects to build their own enrichment facility. The humiliating defeat of mighty military of the United States in Vietnam war heightened the sense of insecurity among the prospective US nuclear customers, who were assured of a security with its military might with its nuclear power in case of a security threat. Thus, loosing nuclear commerce would mean loosing its influence over the nuclear energy programme of the number of countries, particularly in Asia. All these factors, both inside and outside the purview of nuclear issue, caused US gradually loosing its leverage over nuclear

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policies of the non-nuclear weapons states by the mid-1970s. However, containing spread of nuclear weapons capability “became a critical objective of US foreign policy” after the “proliferation trauma” inflicted by India’s nuclear test.

Even before India’s nuclear test, private experts and a few congressional aides in the US had begun to express alarm over growing threats of nuclear weapon proliferation. In April 1974, Senator Abraham Ribicoff released an internal report to the US Atomic Energy Commission, decrying the inadequate attention and effort being paid to preventing weapons-usable nuclear materials from being diverted from power plants and other facilities into the hands of unauthorised persons or groups. India’s nuclear test caused many in the US policy making and executing community to strongly feel that for more than twenty years, the US pursued the nuclear energy market on the theory that the combination of bilateral and international inspections would provide adequate protection against diversion of the fissile material to military purposes. In assessing the dangers associated with possible misuse of nuclear materials, the US was influenced by the mistaken assumption that nuclear weapons development would always require long and costly programmes and that even separated plutonium could not easily or rapidly be turned into explosive device for non-peaceful purposes, thus making a clear impression that the US was living with the policies and institutions that were based on flawed assumptions. India’s nuclear test amplified the alarms and prompted demand for non-proliferation action by the US.

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6 Senate, U.S. Congress, Congressional Record, 93rd Congress, 2nd session, 1974, pp. 12353-12359.

7 See, As an Example, Victor Gilinsky, “Plutonium, Proliferation and the Price of Reprocessing”, *Foreign Affairs* (Council on Foreign Relations, New York), Winter 1978-79, P. 377; and
Ford Administration Approach

President Ford in May 1975, exactly after one year of India's nuclear test, in his review report to the Congress, stated on the adequacy of existing domestic and international institutional mechanisms to prevent the proliferation of nuclear capability for "nonpeaceful" purposes, "I have concluded that current laws provide ample authority to control the export and reexport of nuclear-related material, equipment and technology. Nevertheless, existing policies and regulations are constantly being reexamined and changed as appropriate. Domestic safeguards are under continuing review for the purpose of making them even more effective... As the volume of material and the nature of facilities grow in the world, commensurate increases and improvements in the international safeguarding system will be needed. The United States is encouraging the strengthening of international safeguards by aiding and supporting IAEA safeguard development efforts. It is also seeking to enhance physical security through the adoption of an international convention....

"I wish to assure Congress that the prevention of the proliferation of nuclear weapons or the acquisition of nuclear explosive materials for possible nonpeaceful uses is a priority concern in my administration. Whatever efforts are needed to allow the US and other countries to enjoy the benefits of nuclear power, without fear, will be taken by the government of the United States."8

In its attempt to meet the "critical objective" of containing the spread of nuclear weapons capability, the officials in the Ford Administration particularly Arms Control

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Victor Gilinsky had been a member of the US Nuclear Regulatory Commission since its creation in 1975, having worked previously on international nuclear matters at the Atomic Energy Commission and the Rand Corporation. (This article was adapted for remarks presented at the Atomic Industrial Forum/British Nuclear Forum International Conference on the Nuclear Fuel Cycle, held in London in September 1978.)

and Disarmament Agency proposed a unilateral approach that the US should lead the way to the other nuclear supplying nations by restricting nuclear exports. However, some US foreign policy experts like Henry Kissinger perceived that a unilateral approach would only harm the US nuclear industry and enable Europeans to fill the gap in the nuclear market, and proposed multilateral control arrangement. However, the Ford Administration chose to adopt both the unilateral and multilateral approach for the nuclear proliferation problem.

**Nuclear Suppliers Group (NSG)**

Accordingly, the US took an important step of multilateral approach during the Ford Administration, the establishment of NSG (Nuclear Suppliers Group). America’s monopolizing shares of world nuclear export began to decline as strong industrial competition for the sale of light water reactors developed in Europe. Equally important was also the end of the US near monopoly on provision of enrichment services. France, Germany, Britain, the Netherlands, Japan and South Africa had all begun projects to build their own enrichment capacity well before the more stringent non-proliferation policies of the late 1970s. Thus, by the mid-1970s, US leverage over other countries’ nuclear policies had begun to erode. Though, the US no longer held a hegemonic position over the nuclear arena, the US was still the most important state in the peaceful nuclear area. So it was widely felt in the American strategic community that in any effort to refurbish the existing non-proliferation regime, which could not effectively and fully control the spread of nuclear weapons capability in the past, the US leadership would be a necessary, even though not sufficient condition, for a success in containing the nuclear proliferation.10

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10 Nye, n. 4, p. 100.
The US took an initiative under the stewardship of the Secretary of State, Henry Kissinger, who advocated multilateral approach in place of unilateral approach, for evolving a multilateral control arrangement and established Nuclear Suppliers Group [NSG], in London in 1975, with seven [later fifteen] major suppliers coming together to discuss guidelines for nuclear commerce that would prevent commercial competition from undercutting safeguards obligations. The aims of the London Club, which was formed on the August 1974 agreement of the 21 nations “Zanggers Committee” and its “trigger list”, were: (i) to prevent the export of “sensitive” technologies like reprocessing and uranium enrichment; (ii) to evolve a system of strict safeguards and physical protection standards; and (iii) to monitor proliferation-related activity. Essentially, the major purpose of the NSG was to plug loopholes such as those that had allegedly allowed India to produce its “peaceful” nuclear explosive device and loopholes that facilitated the construction of unsafeguarded nuclear facilities or plants by adapting or replicating technology received under safeguard provision by the consumer or host countries. India certainly was in the minds of NSG as one of the principal targets for its export restrictions. An extensive list of equipment necessary to produce fissile materials and other requisites of nuclear weapons became subject of controls under the “trigger list”. The “trigger list” was a list of items whose export by any one of Nuclear Suppliers Group to any non-nuclear weapon states would trigger IAEA safeguards on the exported items to prevent it from being used for nuclear weapon production. The newly formulated nuclear restrictions bore the drastic change of the definition of nuclear proliferation as a result of India’s nuclear explosion.

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11 Ibid.

12 Tom Graham, India’s ‘Peaceful’ Nuclear Explosion (New York: New Directions, October 1978), p. 3

The US-sponsored NSG agreed unanimously to apply restraints in the supplying of sensitive nuclear technology, equipment and materials that can be used by the importing countries for manufacturing nuclear weapon device, and reached a consensus on imposing stringent safeguards on export of items on a long “trigger list”. The so called trigger list includes source and special fissionable material, nuclear reactors and certain reactor parts, reactor moderators like heavy water and graphite, reprocessing plants and associated equipment, fuel fabrication equipment, heavy water plants, and uranium enrichment equipment. Necessary conditions for purchase of items on the “trigger list” include assurances of peaceful use including “no-use” for even peaceful explosion and effective physical protection of nuclear materials. Those guidelines also include provisions to prevent the re-export of nuclear equipment and material and to improve safeguards techniques and implementation by designing sensitive equipment in such a way as to facilitate safeguards application.

The US failed to win the support of some members of nuclear suppliers to make “full scope” safeguards, a condition of future nuclear exports. As per the “full scope” safeguards provision, the importing / receiving countries were required to open all its nuclear installation to the inspection of nuclear supplier country irrespective of how it was built, either built with the assistance of nuclear supplier countries or built with indigenous technology, materials and components.

The non-nuclear power states perceived that a “nuclear cartel” had been established with the purpose of developing a broad consensus in favour of sanctions against recalcitrant nations that pursued nuclear programmes outside the regulated market system. These non-nuclear power states including India contended that the NSG

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guidelines are against some of the provisions of the NPT under which non-nuclear power states have access to peaceful uses of nuclear energy. Article IV of the NPT provides for not affecting "the inalienable right of all the Parties to the Treaty to develop research, production and use of nuclear energy for peaceful purposes without discrimination" and provides for the parties to the Treaty undertake "to facilitate, and have the right to participate in, the fullest possible exchange of equipment, materials and scientific and technological information for the peaceful uses of nuclear energy. Parties to the Treaty in a position to do so shall also cooperate in contributing alone or together with other States or international organizations to the further development of the applications of nuclear energy for peaceful purposes, especially in the territories of non-nuclear energy for peaceful purposes, especially in the territories on non-nuclear-weapon States Party to the Treaty, with due consideration for the needs of the developing areas of the world".16

The developing countries also charged that the expanded inspections regime was an interference with national sovereignty. The Nuclear Suppliers Group defended saying that its guidelines were merely carrying out the recommendations of the 1975 NPT Review Conference that suggested teeth into non-proliferation controls.17 Reacting to the nuclear test conducted by India, the Review Conference had recommended that common export requirements relating to safeguards should be strengthened particularly by extending the application of safeguards to all peaceful nuclear activities in importing states that are not parties to the Treaty, including India.


At a time when the nuclear suppliers nations were concerned on the strength of the foundation of the international non-proliferation regime that had been built on the support of NPT and the IAEA safeguards, the mechanism of NSG helped allaying those concerns. The NSG was believed to serve as a third supporting pillar to the existing non-proliferation regime through the technical improvements in safeguards procedures and research and development of new surveillance techniques that were designed to keep a tab on activities of proliferation concern.  

Essentially, technology denial of the NSG guidelines added to the strength of the existing non-proliferation regime that prohibited only transfer of nuclear weapons or other nuclear explosive devices, but not the nuclear technology. Consequently, the NSG increased the scope of the safeguards from being applied only on export of nuclear material and equipment to applying them also on the export of nuclear explosive technology. The NPT provides provision for applying the safeguards procedures with respect only to source or special fissionable material, not with respect to technology.

However, non-proliferation advocates in the United States, who had been advocating sending of a strong signal to future nuclear aspirants by cutting off fuel to India for its deed, were still in doubt about the efficiency of such a multilateral arrangement as they perceived that the guidelines were not adequate for the task of halting proliferation because they lacked provisions for “full scope safeguards, no prohibition of the export of sensitive facilities or components, no automatic (fuel) cut-off for (conducting) nuclear explosions, and penalties for helping a non weapons state acquire direct weapons capability”.  

Basically they were not satisfied with the multilateral arrangements, because they lacked provision for automatic sanctions.

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The US-sponsored NSG formulated safeguard provisions also on technology because the US perceived that the technology transferred to India was replicated and claimed to have been indigenous technology by India. For example, India built a reactor in Madras by copying Canada's design for Rajasthan. Safeguard controls were not applicable for this reactor because "replication" was not forbidden by the India-Canada agreement.20 Thus, the NSG's argument in support of technology controls was that by developing its own Candu-type commercial reactor replicating the safeguarded power reactor imported from Canada, India had demonstrated the existence of serious problem. The provisions of NSG imposed such controls on enrichment, reprocessing and heavy-water production plants built with the use of foreign technology, but not on reactors since no consensus could be reached on effective ways to apply controls on them.21 In the eighties, the export controls expanded to include a host of "dual-use" technologies. The controls on dual-use technologies were formalized and further upgraded by the NSG in a meeting at The Hague to help ensure that cooperation in civil nuclear technology did not indirectly contribute to strengthening the nuclear weapons capabilities of recipient nations.22

New Nuclear Energy Policy (1976)

On October 28 1976, President Ford made a major policy announcement on new, comprehensive US nuclear energy policy. He declared, following an inter-agency review of US nuclear policy objectives and options and his discussions with congressional leaders and consultations with leaders of other nations, "Developing the enormous benefits of nuclear energy while simultaneously developing the means to


21 Van Doren, n. 17, p. 62.

prevent proliferation is one of the major challenges facing all nations of the world today... The standards we apply in judging most domestic and international activities are not sufficiently rigorous to deal with this extraordinarily complex problem.”

He announced new decisions to strengthen the non-proliferation activities. “For the first time, these decisions harmonize non-proliferation objectives with domestic energy policy” of the US, it was claimed.

This new non-proliferation policy approach involved both domestic and international angle. Because, “...no single nation, not even the United States, can realistically hope—by itself—to control effectively the spread of reprocessing technology and the resulting availability of plutonium” as the nuclear technology had spread to many other nations and any non-proliferation policy attempt by any nation must involve those nations and most of the world nations that wished to access the nuclear capability.

Deferral of Reprocessing

To meet the “critical objective of US foreign policy” of halting the spread of nuclear weapons technology, the Ford Administration announced a more cautious policy towards the use of plutonium in the US nuclear programme. The plutonium, which can be chemically separated from the reactor-spent fuel by reprocessing the spent fuel, can be recycled and used to generate additional nuclear power, thereby partially offsetting the need for additional energy resources. President Ford described the situation, "Unfortunately this is the root of the problem- the same plutonium produced in nuclear...

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25 Ibid., p. 20.
power plants can, when chemically separated, also be used to make nuclear explosives.”

India’s use of plutonium generated from the peaceful nuclear programme for the nuclear device test, spurred the Ford Administration to focus on controlling of plutonium commerce by deferring the plutonium reprocessing and curb technologies for separating plutonium from spent fuel. He decided to employ “even more rigorous” controls on plutonium. 27

In his policy announcement, he said, “The world community cannot afford to let potential nuclear weapons material or the technology to produce it proliferate uncontrolled over the globe. The world community must ensure that production and utilization of such material (plutonium) by any nation is carried out under the most stringent security conditions and arrangements”. Because, he viewed that such proliferation plutonium reprocessing technology and plutonium in peaceful nuclear programme would unequivocally tempt or force the civil nuclear country to acquire nuclear weapons “by the actions of others”, throwing the world to a situation where security of all the nations is critically imperiled and making it “incalculably difficult and dangerous” to maintain. The Ford Administration decided to defer the domestic reprocessing until a solution to proliferation of nuclear technologies is reached. 28 He ordered a moratorium on US commercial reprocessing of reactor-spent fuel until the world community, in his words, could “effectively overcome the associated risks of plutonium”. 29


27 Ibid.

28 Nye, n. 4, p. 100.

For a temporary halting of the plutonium production and transfer of plutonium reprocessing technology, with unilateral initiative of the US, he preferred, multilateral approach. The unilateral US initiative of deferring of domestic reprocessing was to encourage other nuclear supplying countries and consumer countries to do so by being a model to them. Multilateral approach was required to achieve the "critical objective" because the problem of spread of plutonium reprocessing technology and plutonium was compounded by many other nuclear supplying nations and the temptation of the consumer countries. An effective non-proliferation measures inevitably required the participation and support of all nuclear suppliers and consumers. The United States was once the dominant world supplier of nuclear material and equipment and technology. While the US remained a leader in this field, other European nuclear competitors had come to share the international market, pushing, for nearly a decade, the US nuclear export market to less than half of the nuclear commerce of its heydays. If the United States adopts a unilateral approach and restrains its nuclear commerce, its European nuclear competitors would occupy the vacuum created by US "restraints", undermining the non-proliferation efforts of the United States. So, the multilateral approach was aimed also at ensuring an equal nuclear market share to all.

Sensing the impending criticism from nuclear consumer countries that the current US policy on deferral of plutonium reprocessing is an act of preventing them for enjoying the benefits of peaceful nuclear energy, President Ford conveyed to the US policy making community and executive branch; "We must be sure that all nations recognize that the US believes that non-proliferation objectives must take precedence over economic and energy benefits if a choice must be made".\(^30\) He concluded that the reprocessing and recycling of plutonium should not proceed unless there is sound reason to conclude that world community can effectively overcome the associated risks of

\(^{30}\) President Ford's Speech on a Major Policy Announcement on US Nuclear Energy Policy, n.3, p. 20.
proliferation and believed that avoidance of proliferation must take precedence over economic interests. The United States even proposed to study promising alternative non-nuclear energy sources like solar energy to avoid the risk of proliferation of plutonium and nuclear weapons while meeting the increasing demands of energy for the growing American economy.

The deferral of the commercialization of chemical reprocessing of nuclear spent fuel to halt plutonium production was a major policy announcement towards non-proliferation objectives after the Indian nuclear test in 1974. Along with this significant announcement, the United States called upon all the nations to join hands with it in exercising maximum restraint in the transfer of reprocessing and enrichment technology and facilities by avoiding such sensitive exports or commitments for a period of at least 3 years. This 3 years period was to allow suppliers and consumers to work together to establish reliable means for meeting nuclear needs with minimum risk, while the nuclear supplying nations take sufficient time to carefully assess the wisdom of plutonium use.

Apart from the above decisions on use of plutonium, the United States announced also the following corollary policy decisions or approaches in tune with the spirit of the above two major policy decisions—halting the plutonium production and exercising maximum restraints in transfer of spent fuel reprocessing technology worldwide by all means.

(i) Reliable and Adequate Fuel Supplies on Conditional Basis: The US sought coordination among the nuclear suppliers countries for “restraining” the nuclear supply in order to achieve an effective non-proliferation system and cooperation for assuring “reliable fuel supplies” to meet the peaceful energy needs of the non-nuclear weapons

31 Ibid., p. 22.
32 Ibid.
33 Ibid., p. 24.
states. In the name of its altruistic obligation, the United States sought the cooperation of all the nuclear supplying nations to ensure "reliable supply" and "adequate supply" of fuel to the nuclear power generation of the consumer countries, but not without non-proliferation motives/condition. The US announced to provide incentives of extending nuclear cooperation with those countries that were prepared to "forego, or postpone for a substantial period, the establishment of national reprocessing or enrichment activities or, in certain cases, prepared to shape and schedule their reprocessing and enriching facilities to foster non-proliferation". 34

The United States decided to take two principal actions to be a reliable supplier and maintain its leadership to influence the nuclear behaviour of the other states. In its first step, the Administration was to submit to the proposed legislation of the Congress that will permit the expansion of capacity in the United States to produce enriched uranium, by increasing the authority needed to expand the Government-owned plant at Portsmouth, Ohio and by working with the Congress to establish a framework for a private, competitive industry to finance, build, own, and operate enrichment plants.

The second step was directed towards alleviating the concerns of foreign nuclear customers that they could be subjected to arbitrary new controls imposed well after a long-term agreement and specific controls for nuclear power plants and fuel had been signed. So, the Administration decided to work closely with the Congress to ensure that legislation for improving export controls results in a system that provides maximum assurance that the US will be reliable supplier to other nations for the full period of agreements. 35

(ii) Proposal to Offer Fresh Low-Enriched Uranium to Discourage Plutonium Production: The United States proposed to provide consumer nations with either fresh,  

34 President Gerald Ford, n. 29, p. 1

low-enriched uranium fuel or make other equitable arrangements in return for mutual agreement on the disposition of spent fuel where such disposition demonstrably fosters its common and cooperative non-proliferation objectives. The US said it sought no commercial advantage in pursuing options for fuel disposition and assured fuel supplies.\(^{36}\)

The United States, being a major reliable supplier of fuel, possessed another non-proliferation strategy. The assumption of this strategy was that being a major and reliable nuclear supplier would provide a strong basis for the United States influence and leadership in worldwide non-proliferation efforts as in the past.

(iii) Reprocessing Technology to be Substituted with Reprocessing Service: The US urged the nuclear suppliers to provide nuclear consumers with spent fuel reprocessing services, instead of sensitive reprocessing technologies or facilities to control the spread of fuel cycle facilities.\(^{37}\) The strategy was that when the nuclear supplier nations provide reprocessing services they can have control over the plutonium produced from such services.

(iv) "Reprocessing Evaluation Program" to be Formulated: The US President Ford also urged to undertake a programme to evaluate reprocessing in support of the international policies he has adopted.\(^{38}\) A somewhat ambitious programme called "Reprocessing Evaluation Program" was to be formulated by the Ford Administration to study the exact meaning of this deferral and how it was to be implemented.\(^{39}\)

\(^{36}\) Ibid.

\(^{37}\) Ibid., p. 24.

\(^{38}\) Ibid., p. 23.

\(^{39}\) Ibid., p. 23; and

Nye, n. 4, p. 100.
(v) "Spent-Fuel Storage Facilities" to be Expanded at Home: He encouraged the administrators of the Energy Research Development Administration (ERDA) to take prompt action to expand spent fuel storages facilities to assure the consumer nations that they need not be concerned about shutdown of nuclear reactors because of delays.

(vi) New International Regime for Storage of Civil Plutonium and Spent Reactor Fuel: In tune with his new policy decisions he also proposed facilities for the long-term storage or disposal of nuclear wastes. The President directed the Secretary of State to pursue vigorously discussions aimed at the establishment of a new international regime to provide for storage of civil plutonium and spent reactor fuel. The United States had already made this proposal to the International Atomic Energy Agency and other interested nations earlier in the year in spring. The assumption of this proposal was that it would greatly strengthen world confidence that the growing accumulation of excess plutonium and spent fuel can be stored safely, pending re-entry into the nuclear fuel cycle or other safe disposition.

(vi) Proposal for "Multinational Fuel-Cycle Centers": Along with the storage facilities he proposed to study the idea of few suitably sited "multinational fuel-cycle centers" to serve regional fuel needs, when effectively safeguarded and economically warranted.

(vii) Proposal for the Establishment of "International Energy Institute": In its attempt to discourage the nuclear consumer countries that looked at plutonium as rich source of energy, the Ford Administration had already proposed and continued to advocate the establishment of an International Energy Institute, purportedly designed to help specifically energy needs of the developing countries to match their demand of economic growth through readily available sources of non-nuclear energy. Through this

40 President Ford’s Speech on a Major Policy Announcement on US Nuclear Energy Policy, n.3, p. 23.

41 Ibid., p. 26.

42 Ibid., p. 24.
Institute and other appropriate means, the US proposed to offer technological assistance in the development of indigenous energy resources.\textsuperscript{43}

In his policy announcement, US President Ford also announced other non-proliferation policy decisions but not corollary to the above major policy announcements. He urged the domestic key audiences to take new steps with respect to its own export guidelines on all the nuclear materials, equipments and technology to control proliferation, while seeking to improve multilateral guidelines like NSG guidelines.\textsuperscript{44}

President Ford made another important announcement regarding the physical protection of the fissile materials produced with American origin fuel. According to that announcement, any material violation of a nuclear safeguard agreement—especially the diversion of nuclear material for use in making explosives—was to be universally judged to be an extremely serious affront to the world community calling for the immediate imposition of fuel cut-off. He, in fact, served notice to the nuclear consumer nations that the United States will, at a minimum, respond to violation by any nation of any safeguards agreement to which the US is a party with an immediate cut off of its fuel supply of nuclear fuel and cooperation to that nation.\textsuperscript{45} For the first time in US non-proliferation history, an imposition of nuclear sanction was announced as a policy for material violation of nuclear agreement or nuclear diversion for explosive purpose by any cooperating countries. An obvious reference was made against India's intention to carry out another nuclear explosion supposedly diverting the American origin fissile material. The State Department believed that "a second Indian nuclear test remains inevitable". It believed so because of its perception that India might "engage in nuclear

\textsuperscript{43} Ibid., p. 25.

\textsuperscript{44} Ibid., p. 23.

\textsuperscript{45} Ibid., pp. 26-27.
exports" a concern that apparently outweighed the threat of India’s own development of nuclear weapons.46

On this occasion of major policy announcement, a stage was set also to take unilateral actions and multilateral actions at the instance of any nuclear proliferation activities, even outside the bilateral agreements. According to this, the US would consider further steps that would not necessarily be confined to the area of nuclear cooperation, against the violating nation. The US actions would not be limited to violations of agreements in which the US was directly involved. In the event of material violation of any safeguards agreement, particularly agreements with the IAEA, the US would initiate immediate consultations with all interested nations to determine appropriate action. All concerned governments were invited to affirm publicly that they would regard nuclear wrongdoing as an intolerable violation of acceptable norms of international behaviour, which would set in motion strong and immediate countermeasures.47

New Criteria for Bilateral Nuclear Cooperation Agreement

After the 1974 nuclear test, India claimed that its nuclear test did not violate any international treaty particularly the NPT to which it was not a signatory. It spurred the US to make stringent criteria in judging whether to have any nuclear cooperation or not. Being a party to the NPT was made a very important criteria for any country to have nuclear cooperation with the US. Because Article II of the NPT requires “Each non-nuclear weapon State Party to the Treaty ... nor to manufacture or otherwise acquire

46 Memorandum From State Department Policy Planning Staff Director Winston Lord and Assistant Secretary of State for Near East Asia, Alfred L. Atherton Jr. to Secretary of State Kissinger, “Nuclear Dialogue with India”, 19 August 1975, pp. 1-2.

47 President Ford’s Speech on a Major Policy Announcement on US Nuclear Energy Policy, n. 3.
nuclear weapons or other nuclear explosive devices; and not to seek or receive any assistance in the manufacture of nuclear weapons or other nuclear explosive devices".48

In the major policy announcement of 1976, the US President declared that the US will henceforth apply new criteria in judging whether to enter into new or expanded nuclear cooperation: 49

(i) Adherence to the non-proliferation treaty became a strong positive factor favouring cooperation with a non-nuclear weapon state. Non-nuclear weapons states that had not yet adhered to the Non-Proliferation Treaty would receive positive recognition if they were prepared to submit to full fuel cycle safeguards, pending adherence.

(ii) Positive recognition would also be given to nations prepared to participate in an international storage regime, under which spent fuel and any separated plutonium would be placed.

The US also tried to convince the other nuclear supplying nations to adopt US nuclear export guidelines through intensifying discussions with them. Because variances in the nuclear export guidelines of various nuclear supplying countries would result into commercial disadvantage in the course of commercial competition.

On the one hand, the President had already said he would closely work with the Congress to ensure that legislation for improving US export controls results in a system that provides maximum assurance that the US will be reliable supplier to other nations for the full period of agreements. On the other hand, with respect to countries that were already receiving the nuclear supply from the US under the bilateral agreements, President Ford directed the Secretary of State to enter into negotiations with those recipient countries with the objectives of getting those bilateral agreements to conform to

48 The Nuclear Non-Proliferation Treaty, n. 16, pp. 55-60.

49 President Ford's Speech on a Major Policy Announcement on US Nuclear Energy Policy, n. 3.
the established international guidelines, and to seek through diplomatic initiatives and fuel supply incentives to obtain their acceptance of the US new criteria for bilateral cooperation. It exhibited that the US was caught between its old commitments of reliable supplying of nuclear material to its trading partner under bilateral agreements and new commitments to the Congress that the Administration would place more stringent nuclear export guidelines under new domestic and international export guidelines. The Congress had been clamouring for more stringent nuclear export guidelines ever since India was accused of utilizing the loopholes of US nuclear export policies and guidelines.\(^{30}\)

By providing reliable fuel supply assurance to the trading partners, the US wished to convey the other would-be potential customer of an uninterrupted nuclear supply through bilateral agreements. On the one hand, the nuclear export restrictions and, on the other hand, assured nuclear supply of the US shaped into paradoxical objectives of US nuclear policy.

Commercial requirements came in to conflict with the requirements of the anti-Proliferation strategy of the US. In the mid 1970s the US proposed to sell nuclear facilities for producing weapons-usable materials without regard to the economic justification of the importing countries or proliferation implications. In the mid-70s, in some cases, reprocessing plants were offered to countries that were only just building their first power reactors and lacked any serious economic justification for reprocessing. Subsequently, it was disclosed that, in at least two cases, the recipients were attempting to develop nuclear weapons programmes, and there would almost certainly have been violations or abrogation of safeguards\(^{31}\)

The Ford Administration placed more importance on building “reliable assurance” of nuclear supply as it considered it to be an asset that few, if any, nations of

\(^{30}\)Ibid., p. 28.

\(^{31}\)Nye, n. 4, p. 99.
the world can match. The Administration strongly put forth that the reliability of American assurance should not be eroded at any situation. President Ford said, "Indeed nothing could more prejudice our efforts to strengthen our existing non-proliferation understanding than arbitrary suspension or unwarranted delays in meeting supply commitments to countries which are dealing with us in good faith regarding effective safeguards and restraints".52

Reprocessing Evaluation Program

An aggressive program called, Reprocessing Evaluation Program, was proposed by the Ford Administration to study building the international controls and cooperative regimes, which he mentioned in his major policy announcement in 1975. This was to complement the Nuclear Regulatory Commission’s ongoing considerations of safety safeguards and environmental requirements for reprocessing and recycling activities, particularly its “Generic Environmental Statement on Mixed Oxide Fuels”. The task of defining a reprocessing and recycling evaluation program was given to the Energy Research Development Administration. The Secretary of State, Henry Kissinger, was asked to seek other nuclear supplying nations to participate in designing and carrying out ERDA’s reprocessing and recycle evaluation program, consistent with the US international energy cooperation and non-proliferation objectives. The activities to be carried out by the ERDA in connection with the programme were to be subjected to full IAEA safeguards and inspections.53

Thus, in the final days before the 1976 presidential election, President Ford accepted the recommendations of an internal study and announced the moratorium on commercial reprocessing of spent fuel in the United States pending further evaluation. At the same time, a number of initiatives were also taken by the Congress to tighten the

52 President Ford’s Speech on a Major Policy Announcement on US Nuclear Energy Policy, n. 3, p. 28.
53 Ibid., p. 29.
conditions for nuclear exports from the United States, and several private studies of the nuclear fuel cycle, notably the so-called Ford-Mitre Report and the American Physical Society Report, were coming to the conclusion that the commercial use of plutonium was economically premature and dangerous. Because, many of the world countries had not developed the technology for peaceful uses of nuclear energy and the dual use nature of the plutonium would tempt the non-nuclear weapons states to acquire nuclear weapons. Congressional hearings and draft legislation called for a more stringent approach to nuclear exports.

When the Carter Administration came into office, already there was considerable activity, uncertainty and public anxiety about nuclear energy and proliferation, and his Administration had to face several critical choices at once.

Carter Administration Approach

For the first time, nuclear proliferation concern was used as an election issue in the campaign for Presidential race in US, with the proliferation concern in the US got increasing popular attention. During his election campaign, Jimmy Carter, a graduate in nuclear engineering, dramatized a broad but inchoate popular non-proliferation concern by promising to curb the spread of nuclear weapons as a highest foreign policy priority. His election campaign accentuated public and media attention to the non-proliferation issue.

On assuming the office, the Carter Administration faced one of the basic policy choices on what to do with the legacy of the past policies. There were strong pressures for more radical departures from previous policies. However, while the Carter Administration had taken a number of dramatic new non-proliferation initiatives, there was more continuity than difference with the preceding Ford Administration. He chose

\[54\text{ Ync, n. 2, p. 606.}\]

\[55\text{ Ibid., p. 601.}\]
continuity to reinforce the regime fostered by the past Administrations. President Carter built his nuclear export policy on the premise of the Ford Administration that the controls regime needed to be further expanded and strengthened.

However, in relation to India, he rejected suggestions that the United States should adopt a punitive attitude in retaliation to India’s 1974 explosion by immediately withholding civil nuclear cooperation. It was felt that such action would have provoked domestic Indian opinion toward developing weapons. He did not adopt punitive action also because of the Indian Prime Minister Desai’s repeated disavowal to the nuclear weapons and to the nuclear test itself even for peaceful purposes and his pledge made publicly that no further explosions would be conducted by India.

Ever since the IAEA and NPT were established, a general international consensus had developed on the legitimacy of the IAEA and its international safeguards system, and on the policies reflected in the NPT. Carter Administration made the basic choice to build upon this international consensus to succeed in seeking multilateral cooperation to achieve non-proliferation goals. His Administration did not adopt the alternative of curtailing nuclear power or cutting off all nuclear exports, as suggested by some, as it would not be successful in the long term. On the basis of this assumption and borrowing from his predecessor’s policy, President Carter submitted to the Congress a bill that would establish a strong and effective non-proliferation policy, later came to be known as Non-Proliferation Policy Act of 1978.

The only difference in the proposals of the Carter Administration’s bill from his preceding Administration’s proposal was the proposal to establish a common international non-proliferation sanctions in case of any country violates proliferation

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56 Nye, n. 4, p. 100.

57 Nye, n. 2, p. 612.

58 Ibid., p. 606.
concerns. Even though President Ford in his major policy announcement in 1976 announced imposition of nuclear sanction by cutting off fuel to any cooperating country that diverts the nuclear material for explosive purpose, it was not made into legislation. Even when the Ford Administration took initiative and formulated the NSG, it was criticized that it lacked automatic sanctions provisions for violating the NSG guidelines.

Barrowing from the Ford Administration the maxim that the proliferation is defined as reducing the rate and degree of proliferation and not preventing forever the spread of nuclear weapons capabilities, Carter Administration also made efforts to achieve the non-proliferation policy goal of slowing proliferation capabilities by fostering cooperation among other nuclear supplying nations. As stated by Joseph Nye, Deputy Secretary of State responsible for non-proliferation policy, proliferation was a "matter of degrees, not absolutes". It was defined as reducing the rate and degree of proliferation in order to be able to cope with the destabilizing effects. In the words of Nye, "While the rate of proliferation refers to the politically symbolic event of a first explosion, the degree of proliferation refers to the size, military quality, and deliverability of a country's nuclear arsenal". 59

In the 1976 Congressional hearings on non-proliferation issue, Congressmen like David Lilienthal pleaded for total moratorium on nuclear export to contain the nuclear proliferation. However, the Administration refused to accept this plea as the Administration believed that an export moratorium would fail as a long-term non-proliferation policy. The reasons for a failure perceived by the Administration were; a moratorium would have invited strong protest from the domestic nuclear industries, because an export moratorium would mean moratorium on beneficial nuclear commerce; an export moratorium in the US would create a nuclear supply vacuum allowing other

59 Joseph S. Nye, Jr., "We Tried Harder (And Did More)", Foreign Policy (Carnegie Endowment for International Peace, Washington, D.C.), No. 36, Fall 1976, pp. 103-104; and

Nye, n. 2, pp. 601-602.
nuclear suppliers quickly to step in to fill the vacuum; and the US lacked the means to follow suite once the US announce export moratorium. An altruistic notion that the US did not turn its back on other countries' energy needs was also put forth. Another logic was that while a moratorium would have made the US feel pure, it would have not made it safe, because in a world where other sources of supply exist, nuclear isolationism would have disastrous overall effects. Though, it was said that concern about loosing business was not a reason for the rejection of nuclear export moratorium, the very logic that US nuclear export moratorium would allow other nuclear suppliers to step to fill the gap in the nuclear market exposed the real intention.

Therefore, the Carter Administration placed emphasis on nuclear export and safeguards for preventing the misuse or diversion for military purpose, as was the strategy of “Atoms for Peace” policy, but adding more stringency to the safeguards. Deciding the policy choices on whether to export or not to export nuclear material, the Administration had to decide on how to deal with the diffusion of spent fuel reprocessing technology/plutonium production technology. This diffusion of the plutonium technology threatened to erode the “political value” of the international safeguards system. Carter’s policy borrowed the Ford hypothesis that the diffusion of plutonium technology would greatly increase the risks of misuse of commercial nuclear power programmes. Carter extended the Ford Administration’s moratorium on commercial reprocessing and recycling of plutonium in light water reactors that had by then spread to many countries like India. The moratorium was rooted in concerns about how to safeguard large stockpiles of plutonium separated from the spent fuel by reprocessing the spent fuel and prevent clandestine diversion or sudden taking over of substantial quantities of weapons usable plutonium by the operating nation itself or a sub-national group or a terrorist raid. Even if there was an effective safeguards system to notify any

*60 Nye, n. 2, p. 607.*
diversion of nuclear material it was not sure how successful it would be as the notification might not be a timely warning to exert diplomatic pressure on the consumer country to prevent it from clandestinely making a plutonium explosive device. The intent was also to avoid overt discrimination by not doing domestically what other countries were being suggested not to do.

He ordered the restructuring of the American fast-breeder programme to popularize the fast breeder reactor, in the place of light water reactors, that would require different kind of reprocessing technology that were not available in the consumer countries. Without this reprocessing technology plutonium cannot be chemically separated from the spent fuel. The restructuring of the fast-breeder reactor programme was to develop a safer fuel cycle, which would make the consumer country impotent in plutonium production, before the fast breeder reactors were introduced into the market. Basically, the moratorium on reprocessing and advocacy for fast breeder reactor was not meant for stopping of proliferation at once. It was to preserve the existing distance between civil and weapons uses of nuclear energy. The strategy was to buy a time to develop a safer technologies and institutional alternatives before the consumer nations cross the distance. 61

Accordingly, the Carter Administration helped to organize the International Nuclear Fuel Cycle Evaluation (INFCE), an expansion of the Ford Administration’s Reprocessing Evaluation Programme [REP]. The idea behind the INFCE was to have both the supplier countries and consumer countries come together to study the technical and institutional problems of organizing the nuclear cycle in ways that provide energy without providing nuclear weaponry. The purpose was to evaluate scientifically various aspects of the fuel cycle, and lay an agreed factual basis upon which a consensus might be built for establishing an effective international non-proliferation regime in which

61 Nye, n. 2, pp. 607-609.
nuclear fuel cycle would be made safer. Even though, officially the International Nuclear Fuel Cycle Evaluation (INFCE) was meant to provide a 2 year period for other nuclear nations to re-examine the basic premises that guided their nuclear export policy and search for means to reconcile their different assessments of the energy and non-proliferation risks involved in various aspects of the nuclear fuel cycle, the actual intention was to attract broad participation of other nuclear nations to be a part of political process of stabilizing the basis for an international regime that would effectively prevent proliferation of plutonium through peaceful nuclear assistance.\textsuperscript{62} This in fact led to the heightened awareness of the non-proliferation problem among the nuclear nations causing to a tightened nuclear export policy.

In another, less visible aspect of domestic policy, the Department of Energy had been working on the possibility of safeguarding of the next generation of enrichment technology including not only centrifuge technology, which was under active development in several countries, but also longer term projects such as laser isotope separation. It was to ensure that safeguard criteria are included at the laboratory stage before going to the engineering stage.\textsuperscript{63}

**Congressional Sanctions**

While the Presidencies in the 1970s took many initiatives to tighten US nuclear export controls, giving shape to a policy based on denial of access to technology, the Congress also launched number of independent initiatives to impose conditions on atomic exports linking with American economic and military aid. There was broad consensus in the Congress on the need to establish an international sanctions mechanism for dealing with countries engaged in unauthorised nuclear activities. Export Reorganization Act of 1976 had provided for the establishment of an elaborate sanctions mechanism but the act

\textsuperscript{62} Nyc, n. 4, p. 101.

\textsuperscript{63} Nyc, n. 2, p. 618.
became ill-fated. The initiatives of the Executive branches so far did not contain a provision for sanctions to deter the proliferation problem countries from adventuring into nuclear proliferation activities. The Symington Amendment and Glenn Amendment to the US Foreign Assistance Act of 1961 became well known Congressional actions in providing these provisions of sanction to the non-proliferation policy.

The Symington amendment and the Glenn amendments not only intended to enforce compliance of nuclear importers of US with new export controls through imposition of sanctions. As part of the new non-proliferation approach, the provisions of these Amendments also aimed at any other country that did not have nuclear cooperation with the US under bilateral agreements, unlike the earlier approach where the US tried to control the nuclear programmes of countries with which it had nuclear cooperation under bilateral agreement. The strategy was to make potential proliferators comply with the new export controls through the threat of sanctions or actual imposition of sanctions.

The 1976 Symington Amendment to the Foreign Assistance Act of 1961 provided for a cut off of certain broad categories of economic and military assistance to any state that exported or imported enrichment or reprocessing equipment, materials or technology. However, an exemption of the sanction was provided later if the exporting and importing states ensured that such import or export would not be for nuclear weapons purpose, by placing all their nuclear facilities to outside inspection. The importing and exporting countries would escape the sanction, when the President, under his waiver power, certified to the Congress that a sanction would have “a serious adverse effect on vital interests of the United States” and that the President had received “reliable assurances” from the countries concerned that their actions would not contribute nuclear weapons development.64

In 1977 Glenn Amendment to the Foreign Assistance Act of 1961 was brought to impose sanctions on one more condition. This Amendment prohibited economic and military assistance to a country that delivered or received reprocessing materials, equipment or technology or detonated a nuclear explosive device. Here, in this legislation detonation of a nuclear explosive device was added as an additional criterion that would invoke sanctions, as happened in the case of India's Pokhran-II nuclear tests in 1998.65 The criterion for imposing sanction was expanded once again in 1981 by adding that if a country either transferred or received a nuclear explosive device as such, economic and military sanction will be imposed on that country. In 1985, another amendment called Solarz Amendment still further expanded the criteria that would invoke sanctions. This new criterion incorporated that sanction would be imposed on actual or attempted illegal exports from the United States of items that would contribute significantly, if so found by the president, to the ability of a country to manufacture a nuclear explosive device.66 However, in order to provide a flexibility to the Executive branch in maneuvering the country's foreign policy move, the President, was empowered to waive both the Glenn and Solarz provisions if he determined an aid cut-off would be seriously prejudicial to the achievement of American non-proliferation objectives or "otherwise jeopardize the common defense and security" of the United States. At the same time, in order to keep a check on the Presidential waiver, the Congress required the President (i) as per the Section 735 of the Foreign Assistance Act, to send an annual classified report on nuclear activities in any nation where the Symington or Glenn provisions are waived, (ii) to brief periodically the intelligence information to keep Congress "fully and currently informed" of significant non-proliferation developments.

65 Ibid., Section 670.

66 U.S. Congress, Public Law 99-83 – August 8, 1985, Section 1204, "Suspension of Assistance to Countries Violating U.S. Export Laws in order to Manufacture a Nuclear Explosive Device".
While the Congressional actions were gearing up for providing teeth to the non-proliferation policy, in November 1975, the US Energy Research and Development Administration officials had visited Tarapur to review physical security arrangements for reprocessing and spent fuel under the requirement of 1963 agreement (and later Ford Administration was not at all prepared to grant joint determination for spent fuel reprocessing). In consistent with the Reprocessing Evaluation Programme of his predecessor and its own INFCE, the Carter Administration had decided to block India's reprocessing of spent fuel of US origin despite the provision for such activity in the Indo-US nuclear agreement for cooperation. The Administration conveyed India categorically that it had no intention at all to grant permission to India to extract plutonium from spent fuel released by the Tarapur Atomic Power Station.\(^{67}\) The Article II [E] of the 1963 Indo-US agreement for nuclear cooperation provides, "...when any special nuclear material requires reprocessing... such reprocessing may be performed in Indian facilities upon a joint determination of the Parties..."\(^{68}\) The "joint determination" was provided in the agreement to the effect that safeguards would be effectively applied to such extraction of fissile material to prevent the fissile material from being used for any explosive device.

From 1977 to 1979, the Carter Administration tried to persuade the Indian government to accept full scope safeguards. But President Carter's discussions with Prime Minister Desai in New Delhi in January 1978 yielded no result. Desai's terms were that the nuclear weapon states should conclude a comprehensive test ban treaty, refrain from manufacturing new weapons, and undertake to reduce their stockpiles gradually.\(^{69}\)

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\(^{69}\) Times of India (Bombay), 13 January 1978.
Babha, the Chairman of the Atomic Energy Commission, India, viewed critically, "We should not make the mistake of putting a new-born infant (i.e. India's incipient nuclear programme) into chains (i.e. IAEA safeguards) in order to ensure that he will never grow up in to a criminal." India's steadfast refusal to accept full scope safeguards was not a surprise and it was understandable while Babha feared that international controls might restrict India's development in nuclear energy sector. India maintained this position till the end of the Indo-US nuclear cooperation by a termination of the agreement, and in fact India never accepted a full scope safeguards as well as the perpetual safeguards. In fact, India was loathed to accept an IAEA safeguards on the TAPS itself, when they were required by the 1963 Indo-US agreement for nuclear cooperation, as India was the first country to be asked to accept outside safeguards. Later India accepted it with great reluctance to receive a proven reactor system from the US

**Nuclear Non-Proliferation Act (NNPA)**

The Nuclear Non-Proliferation Act passed in the Carter Administration topped all other non-proliferation efforts of the past by providing more stringent restrictions and controls combined with inducements. For carrying out such strong non-proliferation legislation, the Carter Administration worked closely with members of the Congress that had always been critical of the Executive branch of being less stringent on the non-proliferation moves. A number of Congressional members had already become deeply concerned with proliferation problem with less stringent provisions, and these proponents actually sought even more restrictive conditions on the export of nuclear technology, services and materials than those proposed by the Carter in his non-proliferation bill, submitted to the Congress on April 27 1977. The bill, which heavily relied upon the work that the Congress had already done, basically was a proposition of amendments to the Atomic Energy Act of 1954 and was signed by the President on 10 March 1978, with the Administration and the Congress reaching compromise on their respective positions on

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the degree of the stringency of the law. The NNPA imposed severe unilateral American conditions on nuclear materials exported to other states from the United States.\textsuperscript{71} The long and complicated legislation, NNPA, was the culmination of several years of intense intra-governmental debate informed by numerous official and non-governmental studies.

The legislation, obviously provoked primarily by the Indian nuclear test and consequent non-proliferation debates in the Congress and Administration, had taming of India as a primary target in its mind. The NNPA provisions heated up the Tarapur fuel supply issue till the compromise settlement, the French take over, reached in 1982. The Tarapur case became an acid test to the credibility of the NNPA.\textsuperscript{72}

The NNPA that had retroactive nature required the NRC that the six criteria set forth in the section 305, or their equivalent, are met by the importing country before importing any agreed nuclear material. The section 305 of the NNPA added a new section 127 to the Atomic Energy Act of 1954, providing the six criteria to govern the US nuclear exports. The criteria that had important bearings on American nuclear supply to Tarapur Atomic Power Stations were; (i) IAEA safeguards be applied to the nuclear exports or their derivatives. (ii) No nuclear exports or sensitive nuclear technology be used for any nuclear explosive device or related research and development. (iii) No spent fuel be reprocessed or altered in form with out prior US approval.\textsuperscript{73}

One of the key provisions of the NNPA was to strengthen the IAEA safeguards, as it was felt that because of inadequate safeguards in the past the US could not detect and prevent India from diverting its special nuclear material produced from


\textsuperscript{72} William Sweet, “The U.S.- India Safeguards Dispute”, \textit{Bulletin of the Atomic Scientists} (Chicago), June 1978, p. 50.

TAPS to test a nuclear device. This position was reflected by a commissioner of the NRC, Mr. Victor Gilinsky in 1975, when he dissented the views in support of licensing fuel supply applications. He said India might reprocess the irradiated fuel "under IAEA material accounting and inspection safeguards, which in my view are inadequate by themselves once plutonium is separated from spent rector fuel".  

In addition to this, the NNPA required the importing countries to accept "full-scope" safeguards. As per the provision, no export of source material, special nuclear material, production or utilization facilities, and sensitive nuclear technology can be made available to non-nuclear weapons states unless IAEA safeguards are "...maintained with respect to all peaceful nuclear activities in, under the jurisdiction of or carried out under the control of such state at the time of the export". 

The Congress and the Administration designed the NNPA to be the main statute of the US non-proliferation policy that had evolved after India's nuclear test. The section 2 of the NNPA stated the four policy goals to guide formulation of all the NNPA provisions;

(i) to actively pursue the establishments of more effective international controls over nuclear exports to prevent proliferation.

(ii) the establishment of common international sanctions to prevent such proliferation

(iii) an effort to encourage nations which have not ratified the Non-Proliferation Treaty to do so at the earliest possible date, and,

(iv) adoption of programs to enhance the reliability of the United States as a supplier of nuclear fuel.

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75 Ibid.

76 Section 2, The Nuclear Non-Proliferation Act, n. 73.
There were two important provisions of the NNPA that was distinguishable from the earlier reforms; the provision of sanctions and safeguard also on sensitive nuclear technology. The provision of sanctions was to provide teeth to the non-proliferation policy. And the new safeguard regime was to expand its scope also on “sensitive nuclear technology”, as against the earlier scope of safeguards only on nuclear materials.

The NNPA legislation sought to establish mechanisms for unilateral as well as multilateral sanctions in order to discourage nuclear proliferation. The NNPA made it clear this time, unlike 1963 Indo-US agreement, that detonation of any nuclear explosive device, including the peaceful one, by non-nuclear weapons states would invoke nuclear sanctions-cutoff of US nuclear exports, nuclear material, equipment and sensitive nuclear technology. And it also provided imposition of sanctions on abrogation or termination of IAEA safeguards or materially violation of IAEA safeguards agreements and on engagement of activities involving source or special nuclear material and having direct significance for the manufacture or acquisition of nuclear explosive devices, especially if the nation concerned had failed to take steps, which, in the President’s judgment, represent sufficient progress towards terminating such activities. The section 307 of NNPA provided a cutoff of nuclear exports also to “any other nations”, nuclear or non-nuclear weapons states, if they violate an agreement for cooperation with the United States or any other states, or assisted, encouraged, or induced any non-nuclear weapons state to engage in activities involving source or special nuclear material and nuclear explosive devices, or agreed transfer reprocessing equipment or technology to a non-nuclear weapons states except pursuant to an international agreement or an understanding to which the United States subscribed. However, the Act authorised the President to continue such nuclear exports if he determined that cessation would be “seriously

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77 Section 307, The Nuclear Non-Proliferation Act, n. 73.
prejudicial to the achievement of US non-proliferation objectives or otherwise jeopardize the common defense and security. But the Presidential authorization was subject to disapproval by a concurrent resolution of the Congress.\textsuperscript{78}

The section 303 of NNPA added a new section 131 to the Atomic Energy Act of 1954 requiring the cooperating states to get the US approvals before doing certain things through a "subsequent arrangements" that obviously was to be made separately well after the agreements for cooperation. These "subsequent arrangements" basically placed post export controls on nuclear activities of the cooperating country. The definition of subsequent arrangements included "any arrangement which the president finds to be of importance from the standpoint of preventing proliferation". The "joint determination" for reprocessing of the Tarapur spent fuel became with in the ambit of this "subsequent arrangement". The retroactive nature of the NNPA effectively nullified the provision of the "joint determination" of 1963 Indo-US agreement. The Act provided for a unilateral US veto over disposition of used fuel from any US – supplied plant, allowing the US to unilaterally decide which cooperating country could be given reprocessing rights, and which could not be, notwithstanding a "joint determination" that provided basis for bilateral decision making on reprocessing involving both the supplier as well as supplied country. The NNPA permitted the government to allow reprocessing only when the government found a conditions that would ensure "timely warning" to the US of any diversion or misuse of nuclear material by the cooperating state, in order to prevent the cooperating state from going for any nuclear explosion.\textsuperscript{79} The NNPA also required that the supplier state and cooperating state renegotiate the existing bilateral agreements for nuclear cooperation to meet nine specific conditions set by its export licensing guidelines with in a period of two years. The two-year ultimatum was for meeting the conditions

\textsuperscript{78} Ibid.

\textsuperscript{79} Section 303, The Nuclear Non-Proliferation Act, n. 73.
including placing of safeguards against un-safeguarded facilities that were replicated with the transferred facilities or materials through the use of transferred “sensitive nuclear technology”. Another important condition was perpetuity clause that required the cooperating state to maintain the safeguards in perpetuity irrespective of the duration of the applicable agreement for cooperation and even if the concerned pact is terminated or suspended for any reason by either of the parties to the agreement.  

In addition to the criteria set forth in the section 305 of the NNPA, another most important and controversial provision of the Act was acceptance of “full scope” IAEA safeguards by the cooperating state. If the cooperating state did not accept full scope safeguards over all of its nuclear facilities, including the facilities that did not have any nuclear cooperation with the US, with in the 18 months of the enactment of the law, the NNPA forbade nuclear export approval. This 18-month grace period was designed to allow the President to persuade the cooperating state to adhere either to the Nuclear Non-Proliferation Treaty or to the Treaty’s central controlling device of comprehensive safeguards with respect to all peaceful nuclear activities of the cooperating state. This meant that the importing country would have to open all its nuclear facilities, both transferred facilities as well as indigenously built facilities, to the IAEA inspections. This provision inevitably had important bearings on Tarapur fuel supply case as it meant that the US would terminate fuel supply to one entity, the TAPS, unless India open also all other nuclear installations that were in operation then with out the IAEA safeguards to the IAEA safeguards and inspection.  

The requirement of full scope safeguards and other provisions of the NNPA with their retroactive effect on existing bilateral agreements amounted to an ex parte change of the terms of existing bilateral agreements, which the Vienna Convention on the Law of
Treaties of 1969 clearly prohibits. As per the Article 27 of the Vienna Convention on the Law of Treaties, 1969, "A party may not invoke the provisions of its internal law as justification for its failure to perform a treaty". This merely declares an established principle as does Article 60 (1): "A material breach of bilateral treaty by one of the parties entitles the other to invoke the breach as a ground for terminating the treaty or suspending its operation in whole or in part". 82

Spurred by India's nuclear test, the NNPA provisions with its retroactive nature voided effectively many of the basic terms of 1963 Indo-US agreement for nuclear cooperation and its subsidiary fuel supply contract causing severe friction in the Indo-US overall relationships. The NNPA legislation was an intrusion into sovereignty of India by the US as it had provisions for unilateral command on India's indigenous nuclear programmes. The NNPA's timing and tone had an unfortunate effect on the US efforts to restore consensus over fuel cycle measures through the ongoing INFCE programme. It was widely regarded as a unilateral prejudging of the outcomes of INFCE and intrusion into other countries nuclear programmes. 83 The NNPA had changed the procedural role of the NRC in granting fuel supply license. This change and other provisions that provided cutoff of fuel supply unilaterally created a sense of confrontation and insecurity among the importing countries, 84 including India.

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83 Nye, n. 4, p. 102.

84 Ibid.
The Case of Full Scope Safeguards: Acid Test to the NNPA

The NNPA provisions became a hurdle to the fuel supply India had been receiving from the US. Particularly, the full scope safeguards and perpetual safeguards of the NNPA were the fundamental problems that primarily choked the fuel supply to India.

The NRC that issued license to fuel applications of India got bogged down in the NNPA provisions. While the NNPA was being debated in the Congress in January 1978, the State Department reviewed the Indian nuclear fuel export license XSNM-1060 and recommended the export of fuel to India. This application of India became the first application to be considered by the NRC after the NNPA signed into law. Despite the State Department's recommendation, the NRC was not convinced to license the application. The NRC was divided 2-2 votes. The two commissioners who opposed the license argued that the NRC could not properly ascertain that three of the statutory criteria - IAEA safeguards, peaceful assurances and reprocessing controls - were prospectively met. The dissenting commissioners doubted that India would accept the full scope safeguards within the 18-months grace period. A refusal to accept the full scope safeguards by India would consequently cause termination of the 1963 agreement and consequently getting away with the “perpetuity” clause of the NNPA that in effect warranted India to accept full scope safeguards even after the expiry or termination of the 1963 agreement. In other words the commissioners argued that the NRC could consider the criteria met only if it could find that assurances were “to continue in perpetuity”.

On the failure of NRC to license Indian application, on 27 April 1978, the President Carter, assuming the overriding authority granted to him under the NNPA, issued an Executive Order for the export of uranium fuel to India. For justifying his decision, the President stated that the Government of India had assured to use export of

the uranium only at the Tarapur Atomic Power Station and not for any explosive or military purpose and he had highest confidence over India's commitment in this regard. He stated that he was convinced that denial of this export would seriously undermine the US efforts to persuade India to accept full-scope safeguards, and would seriously prejudice other US non-proliferation goals. 86

After the introduction of House Concurrent Resolution the same was referred to Committee on International Relations. On June 14 it submitted report on the resolution. The report brought out four points; India has returned to democracy after a weakening period of autocracy; the proposed export of fuel represented "small but incremental increase" in spent fuel in Indian hands; the President was pursuing non-proliferation concerns with India; and Prime Minister Desai had committed to use the nuclear energy only for non-explosive peaceful use. All these points argued for avoiding confrontation with India and favoured licensing the fuel supply application. 87

The Indian Prime Minister Desai had been making clear his disavowal to nuclear tests for any purposes, peaceful or non-peaceful, ever since he assumed office. Also, during his visit to the US, he and the Carter signed a joint declaration on June 22, 1978 agreeing to ensure that nuclear energy is not misused for military purposes. "President Carter pledged to make every effort consistent with American law to maintain fuel supplies for Tarapur and continue nuclear cooperation with India". 88 All these factors counted favorably and the House on 12 July 1978 approved the sale of nuclear fuel to India by a vote of 227 to 181.

There were two other pending Indian fuel license applications XSNM-1222 that were filed in November 1977. Following the approval of the XSNM-1060 application in

86 Ibid., p. 258.

87 Ibid., pp. 258-259.

88 Congressional Record, Senate, 22 June 1978, p. 18483.
the Congress, probably in an attempt to cash in on the majority favourable sentiment that prevailed in the recent vote of the Congress on fuel shipment to India, the State Department strongly recommended to the NRC to clear the pending license applications for the export of fuel to India. In fact, till February 1979, the NRC had met three times to decide on the applications, but each meeting was unable to reach a final decision and adjourned. Despite witnessing the prevailing favourable sentiments in the Congress, the two opposing commissioners every time rose new points and sought clarifications from the State Department, along with the same old arguments. The NRC questioned the immediate necessity for the fuel shipment, as the fuel stocks in India were sufficient to run TAPS till 1982. Other issues raised were such as the inadequacy of the safeguards applied by the IAEA at the Tarapur plant and the status of the negotiations between India and the United States on the return or reprocessing of the spent fuel. India intensified pressure on the United States to honour its contractual fuel supply commitments under the 1963 agreement and Indian government stretched its interpretation that failure in fulfilling the contractual obligation would push India to consider the pact “breached” and make its own fuel arrangements for Tarapur if US supplies did not arrive with in a “reasonable” time.

When the license applications came for the final hearing the NRC had all the five members with the President Carter filling the one member vacancy by appointing John Ahearn. On 23 March 1979, in the presence of President Carter’s appointee, the NRC by a majority vote of 3-2 approved the export license to the two pending applications. The approval by the NRC obviated any further need for Executive Order and subsequent Congressional approval.

89 Raj, n. 85, p. 259.

90 Chellany, n. 14, p. 94.
Again, possibly the geo-political factor in Asia that threatened to the US strategic interests in Asia in the cold war context helped solving the fuel supply hick up. The political developments in South West Asia had considerable bearing on the NRC decision to sanction the 28th nuclear shipment to India. With the fall of the Shah’s regime in Iran due to Islamic revolution under the leadership of Ayatollah Khomeini, the United States lost an important geo-strategic surrogate in Southwest Asia. And in Afghanistan, the US perceived that the Soviet presence and influence was increasing with the signing of Afghan-Soviet friendship, Good-Neighbourliness and Cooperation Treaty. In Pakistan also, the US perceived that its traditional ally could not sustain reliability owing to Pakistan’s fluid political situation as a result of the Pakistan Supreme Court confirming the death sentence on former Premier Bhutto. All these adverse developments probably influenced US policy-makers to view India as a possible important component of foreign policy in South – West Asia in geo-political terms. The statement of President Carter and his National Security adviser Zbigniew Brzezinski, in the middle of February 1979 - that the United States currently enjoyed more friendly relations with three key Asian countries, China, Japan and India, than the Soviet Union and it was a major foreign policy achievement for the Administration - could be considered as substantiating the above inference on India’s newfound geopolitical importance. It is also possible that Carter’s new appointee, John Ahearn, for filling the vacancy of the fifth member in the NRC shared Carter’s strategic perception on India and this perhaps influenced the commissioner, John Ahearn, to vote in favour of licensing the fuel supply to India.91

There were two more Indian fuel license applications, XSNM-1379 and XSNM-1569, that came before the NRC in 1980, the date for the two deadlines set forth by the NNPA to make all the cooperating countries to meet all the criteria of NNPA. These

91 Raj, n. 85, p. 260.
applications had been filed by India in September 1978 and August 1979. On 7 May 1980, the Carter Administration issued recommendation to the NRC that the Indian fuel license applications be approved. And, he also communicated to the new Prime Minister of India, Indira Gandhi, through a personal letter, the intention of approving the fuel applications filed by the India.

His recommendation was significant because he issued the recommendation of fuel export license at a time his Administration had failed to meet the two deadlines of NNPA. The NNPA had set forth two important deadlines for making the NNPA fully applicable on the nuclear importing countries; the first was placing of full scope safeguards on all the facilities of importing countries by September 1979, and the second was the renegotiating and rewriting existing bilateral agreements for nuclear cooperation by March 1980. However, even after the end of the deadlines, the Carter Administration had not been able to convince India to accept full scope safeguards and rewriting of the 1963 Indo-US agreement. Even the US was not able to make India to participate in the discussion for “substantive renegotiation” for the application of the two ideas, because India was insisting on the moral obligation of the US to work towards total nuclear disarmament, instead of selective proliferation that was inherent in the NNPA. President Carter confessed: “It's a little bit difficult for me to talk to Prime Minister Desai, who has publicly sworn that their government will never again turn to nuclear explosive and never turn to nuclear weapons, when we ourselves have not yet restrained the spread of nuclear weapons”. 92

However, the NRC on 16 May 1980, voted against issuing licenses to all the applications of India. This time the opposing vote was unanimous in the NRC. All the members held unanimous view that the applicability of the 10 March deadline – statutory cutoff date of NNPA, was clearly binding on them, meaning the license could not be

approved because the criteria of full scope safeguards and other NNPA criteria were not met by India.

A bitter showdown was on the way between the Congress and the Administration on the issue of fuel export approval to India, as they were looking at the issue from two different prisms, legal and political. The Congress was looking at the angle of implementation of the NNPA provisions while the Administration was looking at the angle of broader foreign policy concern in the Asian region. On June 11 1980, the Deputy Secretary of State Warren Christopher and US Ambassador to the IAEA, Gerard C. Smith stated to the Senate Committee on Foreign Relations that the President would issue the Executive Order for the shipment of fuel within the next two weeks opposing the NRC decision of denial of license. Warren Christopher stated to the Committee two reasons for the need for approval; that it was in the best interest of foreign policy to ship the uranium to India because of continued unrest in Southwest Asia, especially the upheavals Iran and in the Soviet intervention in Afghanistan and; that if the United States failed to supply fuel for the TAPS, as promised under the 1963 agreement, Prime Minister Indira Gandhi “might renege on her part of the bargain, which was to keep Tarapur under inspection and safeguards...and would use the spent fuel for another nuclear explosion”.93 It was obvious that he cited the political consideration as primary reason, rather than the legal requirement under the 1963 agreement and of the NNPA provisions, for the need to export the fuel export to India.

In his Executive order, issued on June 19 1980, President Carter asserted that the approval of nuclear export would help strengthen its ties with a key South Asian democracy at a time when it is particularly important to do so. The Carter Administration perceived that insecurity in South and South West Asia had been greatly heightened by the crisis in Iran and the Soviet invasion of Afghanistan and the US should do all that

93 Chicago Tribune, 18 June 1980.
possible to promote stability in the area and improve US relations with the states of that region that can play a role in containing the Soviet expansion. Combined with the previous arguments in the previous case, the Administration argued that the NRC could not take the “grace period” in a stricter connotation, as the Indian applications were filed in 1979, well before the expiry of the grace period. The Administration also warned that India might turn to the Soviet Union for nuclear fuel if the US reneged on the 1963 contract to supply fuel for TAPS, which was running on recycled scraped material and had been able to operate only to the optimum level of 60 per cent capacity due to the delay in the US fuel supply.\footnote{Raj, n. 85, pp. 262-263.}

In spite of the Administrations convincing arguments, some members of the Senate Foreign Relations and Government Affairs Committee opposed the decision. Senator John Glenn, a non-proliferation warrior, strongly opposed saying the non-proliferation law will have seriously undermined if the US allows these sale to India. Senator Alan Cranston argued the fuel shipment would harm the American effort to discourage the Pakistanis from their pursuit of a nuclear weapon capability, and the United States efforts to reduce the dangerous instability brought to South Asia and other tense areas of the globe by regional arms races. Opposition in the Congress was partly based on fear that allowing the sale would send a wrong signal to the world that the US was not serious about imposing penalties or sanctions on states that refused to forego the option of building nuclear weapons. \footnote{Ibid., p. 264.} The passion was running high in the Congress against fuel shipment. At this juncture to ease the opposition and win the support of a number of senators who were in dilemma on whether to support or not to support a disapproval of fuel sale, Carter and his Secretary of State, Edmund Muskie, offered a four-point compromise package;
(i) Only the first shipment would be sent to India and the second would be held hostage for bargaining.

(ii) The Congress would be consulted before the making of the second shipment to India on the progress made in persuading India to accept broader non-proliferation controls and on the advisability of continuing the nuclear relationship with New Delhi.

(iii) Any further nuclear export would be blocked if any new evidences were found that India was going to test another nuclear device.

(iv) The Administration assured that the Congressional approval would not be used as a precedent for considering future nuclear export applications of any nation, meaning any future license would be strictly based on meeting all the criteria set forth in the NNPA. 96

However, nothing could prevent both the House Foreign Affairs Committee and Senate Foreign Relations Committee from disapproving the fuel sale to India. On September 1980, with the advice of the House Foreign Affairs Committee, voted massively (298-98) against the approval of sale of nuclear fuel to India. Facing defeat in the House, the Administration focused its last battle in the Senate by feverishly campaigning to win the support of the Senators. From aboard Air Force one, during his re-election campaign, President Carter telephoned every Senator to support the sale of fuel to India. His Secretary of State Muskie and Secretary of Defense Harold Brown were part of that intense lobbying. 97

During an intensive debate in the Senate on the nuclear sale to India, substantively the debate pitted the short-term political interest of the United States in Asia against the Administrations effort to contain the spread of nuclear weapons. Senator John Glenn, an architect of the NNPA, portrayed the shipment to India as a “landmark test” of American


laws and policies against the spread of nuclear weapons. As in the previous Congressional debates on the same issue, the Senate was dominated primarily by the issues related foreign policy concerns, rather than issues related to non-proliferation concerns. The foreign policy related issues raised in the Senate included: India’s agreement with the Soviet Union to buy $1.6 billion worth of arms; signing of a major Indian trade accord with Iran that had the effect of undercutting the US embargo on exports to Iran; recognition of the Heng Samrin regime in Kampuchea; orbiting of an indigenous civilian satellite using a rocket whose guidance system can be adapted to an IRBM or ICBM; and India’s unbalanced policy of accommodation with the Soviet Union without due regard to the volume of US economic assistance.

Senators like Cranston, Ribicoff and Glenn brought back the issue of 1971 amendment to the Indo-US Nuclear Sale Contract of 1966 under which they claimed any domestic non-proliferation policy change should be accepted by the India. The Administration later easily disproved this wrong claim saying the amendment was misinterpreted as the amendment was only with respect to change of ownership and supply of special nuclear material, not with respect to change in the domestic non-proliferation policies. The backers of the Administration in Senate repeated the argument that denial of sale to India would undermine the reliability of the American fuel supply among the world community and that a denial would amount to breach of contract that India lived up to. They also pointed out that breaking the contract would postpone indefinitely the prospect of serious negotiations with India on nuclear weapons and other nuclear matters.

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However, in the end, the Iran-Iraq war and the Senate's reluctance during a time of crisis to cause the President a major foreign policy defeat helped Carter to prevail. The South and Southwest Asian political situations—- the Soviet intervention in Afghanistan, the tattered political fabric of Iran, the Iran-Iraq war and some instability in the Pakistani government after the confirmation of death sentence of former premier Bhutto by the Supreme Court—- warranted the US to ensure that “the largest democracy in the world, India, is not alienated” as the alienation might encourage the Soviet Union to take advantage of the situation to gain more visible support of India, damaging the US efforts to contain the Soviet expansionism.\textsuperscript{101}

On 24 September 1980, the Senate, following an intense lobbying from the Carter Administration, approved the sale of 38 tons of nuclear fuel to India by a very thin margin of two votes – 48 to 46. As already proposed by the Administration only the first fuel shipment was made, the second being held hostage for the future negotiations with India. In the first significant test of NNPA, the Congressional battle exhibited two foreign policy objectives colliding head on: the need to maintain and strengthen US influences in the volatile South and Southwest Asia region of the world Vs the need to tighten the reins on nuclear proliferation.\textsuperscript{102} The US did not continue to hold the full scope safeguards hostage to the fuel supply because of the two paradoxical objectives.

Fuel Cut-Off Scraps the Indo-US Nuclear Cooperation

The Ronald Regan assumed the Presidency in 1981 at a time when the NNPA was being tested by the Tarapur fuel sale issue. Though his Republican Party platform, in an anti-proliferation tone, had called for a cut-off fuel to India, later when he assumed the Office he made it clear that he was not going to be unduly concerned about nuclear proliferation.

\footnote{Congressional Record, Senate, 24 September 1980, p. S. 13259.}

\footnote{Raj, n. 85, p. 269}
The Reagan Administration’s non-proliferation policy had certain continuity with the approaches of previous Administrations. Like his preceding Administrations, his Administration also treated non-proliferation as a fundamental US national security and foreign policy objectives. But the assumptions of Reagan Administration on non-proliferation strategy were different from the previous Administrations. The Reagan Administration assumed that the root-cause of the nuclear weapons proliferation was primarily the threat perception of non-nuclear weapon states on its national security, whereas the previous Administrations assumed that the root-cause of the proliferation of nuclear weapons was only the spread of the nuclear weapons technology. The Reagan Administration contended that forging close political cooperation with “proliferation-problem countries”, rather than by imposing sanctions and cutting off nuclear ties could weaken the incentives for weaponization. So, the Reagan Administration placed primary importance on “political” approach, rather than the “technical fixes”, which the Carter Administration emphasised to solve the nuclear proliferation problem. The Administration believed that conventional arms transfers could alleviate security concerns of such nations and help reduce a key motivation for going nuclear. This was a rationale behind the US cooperation with the Pakistan and military and economic aid package. In his January, 1988, national security strategy report to Congress, President Reagan stated: “provision of US military and economic assistance helps Pakistan meet legitimate security needs without resorting to the acquisition of nuclear weapons”.

Rather than pursuing a rigid, unilateral effort to block proliferation everywhere, the


Reagan Administration would discriminate between countries that posed threats to the interests of the United States and those that did not. Thus in the “political approach” complete non-proliferation was replaced by selective proliferation. Whereas, the concept “non-proliferation” per se a discriminatory word, the US attempted discrimination within discrimination through selective proliferation interestingly to achieve the same non-proliferation objectives. In its search for a new US base in the Indian Ocean, his Administration perceived that the Pakistan could be a base for the US. And, the Deputy Secretary of State for Near East and South Asian Affairs, Jane A. Coon, in a testimony before the Sub-committee, stated: “We are deeply concerned over Pakistan’s security. Pakistan is now a ‘front-line’ state facing 85,000 Soviet soldiers across its border in Afghanistan. Pakistan’s strategic location, at the eastern flank of the Persian Gulf, makes it very important that we and our allies undertake an effort to help Pakistan resist Soviet pressures and to become stronger and more self-confident.”106 In tune with the Administrations thinking, the Congressional committees approved the requests of the Administration on aid to Pakistan. On May 13 1981, the House Foreign Affairs Committee approved the Foreign Aid bill that included assistance to Pakistan. On May 14, the Senate Foreign Relations Committee exempted Pakistan from the Symington amendment, to facilitate providing military and economic aid package to Pakistan. Along with the exemption from the operation of Symington Amendment on Pakistan, the Senate Foreign Relations Committee approved Administration’s request of $500 million yearly assistance to Pakistan for five years or $ 2.5 billion.107 Despite the existence of overwhelming facts that Pakistan was pursuing nuclear weapons programme, the Administration’s recommendation to waive the Symington amendment— which prohibited the US from assisting nations that pursued nuclear enrichment technology and


refused to give assurance that they would not develop nuclear weapons - exhibited that the Administration was sacrificing the non-proliferation concern for political expediency. While the US was making serious efforts to contain the nuclear proliferation, the selective proliferation of US by exempting Symington amendment and assisting Pakistan weakened the credibility of its proliferation concern.

However, the Regan Administration was not ready to ship the second of the two shipments approved in the previous Congressional debates over the Executive Order of his predecessor, Carter, on fuel sale to India. Following the US-Pakistan strategic collaboration, the American attitude to the sale of nuclear fuel to India had hardened.

Denial of the nuclear export to India, while, indirectly inducing Pakistan's nuclear weapon programme by exempting Pakistan from Symington amendment, amounted to a "selective non-proliferation", conversely "selective proliferation", by the United States. In fact the Congress was being prepared for a possible role in the termination of the Indo-US agreement for nuclear cooperation.

According to the retroactive NNPA provisions the US should have imposed sanctions on India for it did not accept for full scope safeguards and for its detonation of nuclear device in 1974. But, the US did not invoke sanctions provisions because of the paradoxical objectives of the US The objective of full scope safeguards clashed with political interest of maintaining good relationship with India in the later part of Reagan Administration in terms of geopolitics, thereby failing the NNPA. In the case of attaining the goal of placing full scope safeguards and perpetual safeguards on India's every nuclear installation, the US had clearly failed. India could never accept these demands on the safeguards as they did not flow from the Indo-US bilateral agreement and it was an intrusion of its sovereignty. The pressure exerted by the fuel delay in the Carter Administration and fuel denial in Reagan Administration did not achieve the US

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108 Raj, n. 85, p. 271.
objectives on full scope safeguards perpetually. The delay and denial of fuel was equal to
imposing a total cut off of fuel or sanction as in both the cases commodities were held up
virtually in pursuit of meeting demands.

Termination of Indo-US Cooperation: The French Take over

India could not reconcile with its position of continued refusal to accept full
scope safeguards. Combined with this, the bitter struggle between the Congress and the
Executive branch in the US over the fuel sale to Tarapur made India to increasingly
realise that no more nuclear cooperation with the US under 1963 agreement was possible.

India came to believe that both the countries should seek a "decent burial" or
termination of the Indo-US nuclear agreement of 1963.109 In early 1981, Administration
officials picked up on the Indian suggestions that the 1963 agreement should be
suspended due to US failure to fulfil its terms. But a termination of the agreement could
mean termination also of the US rights and commitments regarding the safeguards over
Tarapur Atomic Power Stations, as India had been claiming. On the request of the
Congress, one of the Congressional Research Service members, Warren H. Donnelly
studied the possibility of such a nuclear divorce. Donnelly observed "a negotiated
termination of US nuclear co-operation with India would end the current impasse with its
strains on US – India relations, but probably at the cost of full US control over what type
of nuclear fuel may be used in Tarapur, over reprocessing the Tarapur spent fuel to
recover its plutonium, and over what is done with that plutonium." He suggested that
negotiations could take the form of an amendment to the agreement or as a separate
"subsequent arrangement" provided in the 1978 NNPA.110

109 Stuart Auerbach, "India Proposing Amicable End to Nuclear Contract", Washington Post, 4 February
1981.

Negotiations began between the India and the US in 16 April 1981. During the first round of talks the US insisted that an agreement terminating the 1963 agreement should primarily require for an “all times” application (even after the expiry of 1963 Indo-US bilateral agreement) of the IAEA safeguards on the reactors and spent fuel and require a continuation of the India’s commitment to use both for peaceful purposes only along with a commitment of “non-transfer” of nuclear material to other countries. On the spent fuel reprocessing, however, the US assured that the United States would not press to retain the right of approving India’s reprocessing of Tarapur spent fuel. India rejected the proposal over the point of “all times” adherence to the safeguards. The Indian chief negotiator Dr. H.N. Sethna argued that when the 1963 agreement was terminated, all rights and obligations under the agreement would lapse, meaning when the US failed in its obligations of providing the fuel “as needed” to India, logically Indian obligations of adhering to the IAEA safeguards and the US rights over granting of permission to reprocess the spent fuel “under joint determination” would get terminated. With out productive conclusion the first round of talks ended, agreeing to meet again in New Delhi.

Before the beginning of the second round of talks, the US chief negotiator James L. Malone had conveyed India that the US would compromise on two of its interests viz “non-explosive use” and “non-transfer” earlier required from India. However, the US still demanded acceptance of IAEA safeguards “all times” by India. However, India firmly stuck to its earlier position. Dr. Sethna and Eric Gonsalves, the other interlocutor of India, argued that Article VI of the 1963 agreement strongly tied safeguards to the supply of US fuel and that the treaty basis for maintaining India’s acceptance of Tarapur safeguards was conditional solely on supply of

111 Perkovich, n. 9, p. 234.

fuel from the United States. However, in the 1963 agreement itself, both the parties contrasted on the perpetuity of the safeguards and the same had also been written in the same Article. India viewed that the United States might be deliberately engaged in delay-tactics in order to exacerbate Tarapur's fuel-supply problem and thereby increase pressure on India to accept the American terms in disengagement. Once again the talks became futile in resolving the longstanding fuel dispute.

The failure of the two rounds of talks necessitated another and final round of talks in Washington in November 1981. Indian interlocutors were prepared to announce that India would consider the agreement unilaterally broken by the US, in case the US continue to adopt delay-tactics by unduly postponing the second pending fuel shipment and refusing to supply fuel "as needed". On a possible return of spent fuel, the US Administration was caught between two rival positions; on the one hand, the logistical problems and high cost involved with the proposition of buying back the India's spent fuel caused reluctance, and on the other hand, environmentalist opposed the proposition of buying back the reactor spent fuel as it might cause hazardous health problem. Owing to the pressure of these positions, the Administration was not able to move from its earlier position on perpetuity of safeguards over TAPS. Consequently, the third round of talks also could not yield desired result, irritating India. Meanwhile, despite applications for replacement parts for TAPS had been filed in November 1980, the US action of holding up the export of several required replacement parts for TAPS also added to the irritation of India, as the TAPS urgently required them to solve the serious disrepair.


A strong belief prevailed among the Indian viewers that the failure of the third round of talks would lead India to declare that the US "unilaterally abrogated" the agreements and Indian obligations on safeguards would become "null and void", causing a serious irreparable damage to the overall bilateral relationships.\footnote{"Indo-US Tarapur Pact May End Soon", \textit{Times of India} (New Delhi), 17 November 1981.} However, the Indian Prime Minister, Mrs. Indira Gandhi, stated, in the consultative committee meeting of Department of Atomic Energy, that India had to look at the "overall bilateral relations" with the USA before making any decision to solve the fuel supply dispute.\footnote{Indian Parliament, Consultative Committee Meeting with Department of Atomic Energy, Science and Technology, Electronics, Space and Environment (Press Information Bureau, Government of India, New Delhi), 22 December 1981.} Combined with the concern to save overall relationships from the fuel dispute, India's realisation that any declaration to unilaterally terminate the agreement might invite sanctions under the evolved nuclear non-proliferation policy of the US, prevented India from going for unilateral termination of the agreement.

An amendment to the US Export Import Bank Act in 1977, incorporated that the EXIM bank may not approve any financial transaction with a nation that engaged in certain undesirable activities, if the Secretary of State reports so. Such undesirable activities included, any violation, abrogation or termination of IAEA safeguards or of a bilateral agreement for cooperation with the United States.\footnote{Warren H. Donnelly, The Nuclear Non-Proliferation Act of 1978, \textit{Public Law 95-242: An Explanation} (Congressional Research Service Report, No. 8-1985, Library of Congress, Washington, D.C.), October 1978, pp. 26-27.} India feared that the US might invoke this amendment to impose sanction, causing more damage to the bilateral relations and India's possibility to transact with the US EXIM bank.

Moreover, the US also could influence the IMF and World Bank against any fresh or already sanctioned loan to India. There was a statutory requirement that US executive directors in the World Bank and the International Monetary Fund be instructed
to consider, while carrying out their duties, whether the recipient country had detonated a nuclear device, or is not a state party to the Treaty on the Non-Proliferation of Nuclear was to deter another PNE device being set off by a non-nuclear-weapons state. A possibility of the US to influence its allies in the Aid India Consortium to deny any financial help to India also deterred India from taking any drastic move that would provoke the US to exploit its entire possible means to punish India.

On resolving the impasse, the Americans came to believe that permitting a surrogate fuel supply or “third-party fuel supply” under the terms and conditions of the 1963 agreement was the only way to keep the safeguards intact on the TAPS.118 The US suggested India to find a new source of fuel supply preferably France rather than Russia, which had offered to sell uranium fuel to India in 1979.

The threat of possible sanctions, concern over maintaining overall bilateral relations and doubt over successful development of alternate Mixed Oxide Fuel (MOX fuel) for fuel starving TAPS by the Department of Atomic Energy, pushed India to accept the proposal of third party fuel source, opening a way to resolve the Tarapur dispute and prevent serious damage to the bilateral relations of the India and the US. The US interest lied also in the vast Indian market following the Indian government’s liberalisation of imports and easing of controls on the private sectors.119 The instrument of sanctions could not achieve the non-proliferation goals of the US, but, the perceived threat of sanctions only helped to achieve India’s acceptance for a third party fuel supply in a termination of the Indo- US nuclear agreement. The irony was that the instrument of sanctions that is used for non-proliferation purposes was used for terminating the 1963 Indo-US agreement that had the same non-proliferation objective of containing the spread of

nuclear weapons through influence on non-nuclear weapon countries as per the “Atoms for Peace” policy.

Following the calculations of the interests by both the sides, the Indian Prime Minister, Mrs. Gandhi, and the US President Reagan met in Washington in July 1982. On the decision made by the both the leaders, a written statement issued by the US government read: “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 non-proliferation interests and meet India’s need for nuclear fuel for the Tarapur power station.”

Accordingly, all the three parties, India, US and France arranged for the transfer of the 1963 agreement. The face saving arrangement between the United States and India over the transfer of the 1963 agreement contained the following important provisions:

(i) The United States would relinquish its right to be the exclusive fuel supplier to India, enshrined in the Article II of the 1963 agreement;

(ii) Similarly India also would not have the US to supply the requirements for TAPS;

(iii) India thereafter would “obtain all its requirements for enriched uranium” for Tarapur from France;

(iv) India should uphold its pledge made in 1974 that special nuclear material sold to it or produced at Tarapur facility will exclusively be devoted to the needs of that station;

and,

(iv) The trilateral safeguards accord of 1971 and the agreement for cooperation of 1963 “shall remain in effect in all other respects”. (Emphasis added)

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An agreement, exactly on the lines of the above arrangement between the US and India, was signed between the French government and Indian government in November 1982, though, there was some tough play for some time in the beginning between India and France over the French attempt to impose additional safeguards on India.\(^{121}\) As per the Indo-French agreement, the France agreed to sell 20 tonnes of low enriched uranium to TAPS every year till 1993, when the 1963 agreement expires.\(^{122}\)

Despite the fact that no international convention had ever pronounced any transfer of agreement or treaty, both the contentious parties, the US and India, agreed for this unusual divorce. This transfer of the Indo – US bilateral agreement into the Indo-French bilateral agreement put an end to the longstanding bitter relationship between India and the US, which had been aggravating ever since India conducted its nuclear test in 1974. Both the American and Indian sides were satisfied with this face saving arrangement. India was happy that fuel supply to the much starved TAPS would be available without any hiccups and that a collision course with the US was successfully avoided. The US was happy that without hurting its own non-proliferation related legislations like NNPA, the fuel supply dispute was dissolved. This disengagement helped revive the bilateral

\(^{121}\) The Indo-U.S. arrangement envisaged "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". The natural meaning of this arrangement logically was that only the duty of fuel supply would be delegated to the France and nothing else, as in all other respects the original agreement shall remain in force; France did not have any right to claim any additional safeguards. However, later, France demanded that India should accept additional safeguards in perpetuity and pursuit, the same conditions that interestingly had caused the 1963 Indo-U.S. agreement to disagree and arrange France as surrogate fuel supplier. The France said that being a party to the Nuclear Supply Group, it was required to impose additional safeguards on the nuclear importing countries. Frustrated by the French demands, India was deeply determined to play tough in this case, unlike in the case of Indo-U.S. disagreement on the safeguard issue. Indian position was that France as surrogate fuel supplier had no right to impose new conditions on India. Ultimately, only a political expediency resolved the row between France and India, when the French government was keen to make a hefty contract with India to sell forty Mirage 2000 fighter-jets, Matra air-to-air and Milan anti-tank missiles, Puma helicopters and advanced avionics technology for more than 800 million dollars. France agreed for an agreement "with in the framework" of 1963 Indo-U.S. agreement, saying that the NSG guidelines were not applicable to an existing agreement that predated them".

relationship between the two largest democracies of the world or at least prevented the bilateral relationship reaching irreparable damage, after a prolonged increasing bitterness.

The fuel cut off provision of the NNPA devised for promoting non-proliferation objectives like full scope safeguards to contain the spread of nuclear weapons capability backfired. The pressure exerted by the fuel delay and denial failed the same non-proliferation objective of the NNPA, as the fuel supply hiccup caused the scrapping of the Indo-US cooperation that had the non-proliferation objective in its mind. And ironically, the instrument of sanctions that is used for non-proliferation purposes, became an instrument for terminating the 1963 Indo-US agreement that had the same non-proliferation objective of containing the spread of nuclear weapons through influence on non-nuclear weapon countries as per the “Atoms for Peace” policy.

As far as the impact of the fuel delay and denials on India were concerned, they certainly caused disruption in the continuity of the power production of the Tarapur Atomic Power Stations. However, fuel delay and denial of the US at its whims, despite the clear cut provisions for continued fuel supply “as needed” to India, made India feel its sovereignty was subjected to undue political pressure leading towards working for self-reliance in nuclear technology. Dr. Sethna, the then Chairman of Atomic Energy Commission, was quoted writing in an article in 1979 in the IAEA Bulletin: “India’s programme for the peaceful utilization of atomic energy has to a certain extent, been affected by restrictive trade practice and unilateral trade embargoes on nuclear supplies by certain countries...Such measures will cause temporary delays and perhaps cost over-runs for projects in the near future. In the long run, these developments will only strengthen and accelerate India’s self-sufficiency in the nuclear field”\footnote{Moss, n. 70, p. 90.} Otherwise, if India would have had developing weapons capability in its mind, it would have been
definitely constrained by the shutdown of the plutonium-reprocessing plant at Trombay in 1975.\textsuperscript{124}