July 11, 1974

Executive Secretary George S. Springsteen to Secretary of State Kissinger, “Analytical Staff Meeting,” enclosing “Discussion Paper on U.S. Nuclear Nonproliferation Policy"

Citation:

"Executive Secretary George S. Springsteen to Secretary of State Kissinger, “Analytical Staff Meeting,” enclosing “Discussion Paper on U.S. Nuclear Nonproliferation Policy"", July 11, 1974, Wilson Center Digital Archive, RG 59, Executive Secretariat Records, Memorandums of the Executive Secretariat, 1964-1975, box 12, S/S Staff Meeting https://wilson-center-digital-archive.dvincitest.com/document/119775

Summary:

This report provided a comprehensive take on the problem of nuclear proliferation and the state of U.S. nonproliferation policy. Among the specific issues reviewed were the status of the NPT, export control issues, the problem of “peaceful nuclear explosions,” the implications of the Indian test, and long-term steps for controlling the proliferation of nuclear capabilities. Prepared by Jerome Kahan and Charles Van Doren, respectively with the State Department’s Policy Planning Staff and the Arms Control and Disarmament Agency.

Credits:

This document was made possible with support from Carnegie Corporation of New York (CCNY)

Original Language:

English

Contents:

Original Scan

STAFF MTG
FRIDAY
1. RF
2. S/S Memo File

DEPARTMENT OF STATE
Washington, D.C. 20520

SECRET

7412797
XR- 7412661

July 11, 1974

7/12

MEMORANDUM FOR S - THE SECRETARY

SUBJECT: Analytical Staff Meeting

7/12 The subject meeting at 4:00 p.m., Friday July 11 will focus on nuclear non-proliferation, utilizing as background material the attached (Tab II) discussion paper prepared by the Policy Planning Staff (S/P).

Mr. Lord is prepared to introduce the subject.

George S. Springsteen
Executive Secretary

Attachments:

Tab I - Participants
Tab II - Discussion Paper 5/5-7412661

SECRET
GDS

TAB E

The Secretary's Analytical Staff Meeting
Friday, July 12, 1974
4:00 p.m.

Attendance

✓ D - Mr. Ingersoll
✓ P - Mr. Sisco
ACDA - Dr. Ikle
T - Mr. Maw
M - Mr. Brown
✓ C - Mr. Sonnenfeldt
✓ PM - Mr. Vest
✓ NEA - Mr. Atherton
✓ EUR - Mr. Hartman
✓ SCI - Mr. Pollack
✓ S/P - Mr. Lord
✓ S/AM - Ambassador McCloskey
✓ S/P - Mr. Kahan
✓ ACDA - Mr. Van Doren
✓ S/S - Mr. Springsteen

INR - Packman

STAFF

DEPARTMENT OF STATE

7412661

BRIEFING MEMORANDUM

S/S

HAK DAW 7/12/74

SECRET

To: The Secretary

From: S/P - Winston Lord

Analytical Staff Meeting
on Nuclear Non-Proliferation

Attached is a discussion paper on nuclear non-proliferation for the analytic staff meeting scheduled on Friday, July 12, at 3:00 p.m.

Everyone is for non-proliferation in principle. No one is going to be in favor of seeing nuclear weapons spread around the world. The real issues, as sharpened by the Indian explosion, are:

-- Is there much that the U.S. can do effectively to halt the proliferation of nuclear weapons or is this an inevitable trend?

-- Even if we believe there are effective steps we can take, how much importance do we really attach to non-proliferation when we face practical decisions and trade-offs?

The attached paper first addresses the basic question of whether a non-proliferation policy is feasible. It then provides a framework for specific U.S. policy actions centered around four major elements: (1) strengthening the NPT structure; (2) tightening international safeguards and export controls; (3) dealing with the problem of peaceful nuclear explosives; and (4) reacting to the Indian test.

Background material on each of these elements and a summary of additional non-proliferation options is provided in a series of tabs.

Attachments:

Discussion Paper
Tab A - NPT Background
Tab B - Export Control Issues
Tab C - Peaceful Nuclear Explosives
Tab D - Reacting to the Indian Development
Tab E - Longer-Term Options

Drafted:
S/P:JHKahan
ACDA:CVanDoren
7/11/74

Concurrences:
NEA:AAtherton
DKux

SECRET/GDS

FRIDAY

SECRET

DISCUSSION PAPER ON U.S. NON-PROLIFERATION POLICY

The non-proliferation problem is at a crucial stage. The Indian test, and the generally mild and unconcerted initial reactions to it by the world community, could lead others to acquire independent nuclear explosives capabilities in a "chain reaction" effect. Perceptions that the U.S. is no longer strongly interested in preventing proliferation could adversely affect completion of the NPT ratification process in Japan and the EC countries, whose adherence is vital to the efficacy of the treaty and to preventing further nuclear spread. Despite its potentially adverse consequences, the Indian explosion need not make inevitable the unlimited spread of nuclear weapons, particularly if appropriate countermeasures are taken. It should be noted, for example, that safeguarded material was not used in this instance and that the Indian test does not call into question the effectiveness of international safeguards.*

Specific operational needs are already pressing upon us. Certain non-proliferation actions have already been initiated but have not yet been completed (e.g., seeking to close the "PNE loophole" on India's utilization of U.S.-supplied nuclear fuel). The Canadians -- who must make nuclear export decisions in the next few weeks that could significantly affect proliferation -- have requested urgent consultations, as have the British and others. Immediate consultations are also needed with suppliers, including France, who are being approached by Pakistan to provide it with a chemical reprocessing plant. Congressional concerns about the Middle East reactor sales and limiting damage from the Indian explosion must also be met. Approaches to PNEs, involving non-proliferation considerations as well as their handling under the TTB, need to be formulated and discussed with the U.S.S.R. Finally, an approach to limiting damage from the Indian development needs to be prepared for your projected trip to South Asia.

*Studies updating the response to NSSM 156 on the Indian case and responding to NSSM 202 on the overall non-proliferation problem have been done. Official agency reviews of these studies are nearing completion, and should be ready to be forwarded to the President by the middle of this month. We are also committed to provide the results of these studies to the Senate Foreign Relations Committee and have offered to discuss them with NAC.

SECRET

The purpose of this paper is to seek to establish a framework within which specific non-proliferation decisions can be made. The elements of the U.S. non-proliferation strategy outlined below are based upon the premises that:

-- it is still in the U.S. interest to abate the further spread of nuclear weapons;

-- we still have time and influence to deter states from acquiring independent nuclear explosive capabilities; and

-- a range of practical measures are available to help dissuade or delay others from entering the nuclear weapons field.

Desirability and Feasibility of Non-Proliferation

Inhibiting the spread of nuclear weapons has been a consistent and important element of U.S. policy for the entire nuclear era. Non-proliferation of nuclear weapons is now a policy goal for the United States, for most of its allies, most of its adversaries, and most non-aligned states. The basis for our non-proliferation interest is the assessment that the danger of nuclear war as well as world instability would significantly increase with an unrestrained spread of nuclear weapons. Acquisition of nuclear weapons would also give nations a sense of greater independence, thus complicating international diplomacy and diminishing American influence. If nuclear weapons competition among third countries developed, and if various nations or even subnational groups could threaten the United States with nuclear violence, our defense posture might require extensive and costly restructuring. Nuclear non-proliferation is also a fundamental element behind U.S.-Soviet attempts to achieve arms limitations. A major failure of non-proliferation would bring into question the assumptions behind these attempts, and would be acutely unsettling to major allies such as the FRG and Japan.

Technical developments will increase both the difficulty and the importance of deterring further nuclear proliferation in the coming decade. Nuclear power generation is coming into wider use throughout the world and U.S. dominance as a commercial supplier is diminishing. Hence, nuclear materials will become available in an increasing number of countries and in increasing amounts, while the basic knowledge necessary

to manufacture nuclear explosives has become more widely available. At the same time, we are entering a period when political barriers to proliferation could be weakened or could virtually collapse, given movement toward a multipolar world and changes in the perceptions of some concerning the reliability of security guarantees. Moreover, as a result of the Indian nuclear test, other non-nuclear-weapon states may revise their decisions regarding independent nuclear weapon or nuclear explosive programs.

The success of any non-proliferation policy cannot be guaranteed and, as recommended in NSSM 202, it would be prudent to study the problem of how to shape our security posture in a world environment of relatively large numbers of nuclear powers. Furthermore, many non-proliferation approaches could be costly, counterproductive, or in conflict with other U.S. foreign policy objectives.

Nevertheless, a strong case can be made that policies aimed at deterring further proliferation can be effectively pursued without incurring significant costs or risks. In any event, it seems certain that inaction or deemphasis of our policy at this time would increase the likelihood of additional nuclear weapons decisions. Four key factors support this judgment:

1. Many important non-nuclear-weapon states do not have the capability to produce nuclear explosives, and it may be possible to keep them from acquiring such capability for a substantial number of years. With the exception of Israel, other likely proliferators appear to be 3-10 years away from an initial test. Countries such as Argentina and the Republic of China (an NPT party), would be in the near-term category, while those such as South Africa, Brazil, Egypt, Pakistan, and Iran (an NPT party) which are just initiating power programs, would be in the latter group. Despite its advanced nuclear power program, Sweden has apparently foreclosed its nuclear option in the near-term due to a recent decision to forego construction of a reprocessing plant needed for extraction of plutonium. Japan and the FRG are in a special category -- they have advanced nuclear programs and economic and technical bases which provide the potential to build large numbers of weapons within a relatively short period, but strong political inhibitions coupled with the U.S. security relationship make them unlikely proliferators in the near-term. In general, for countries whose military needs can be met by only a limited nuclear force, the time-scale for acquisition decisions is determined by their nuclear capabilities, whereas

for countries with strategic military requirements, delivery systems appear to be the pacing factor.

2. The nuclear materials and equipment needed to produce nuclear weapons are still available only from a limited number of suppliers who generally oppose proliferation. The nuclear materials that would have to be used by a NNWS to manufacture nuclear explosives are plutonium or U-235, each of which must be produced in a nuclear reactor and then reprocessed in a chemical separation plant, or highly-enriched uranium (HEU) produced in enrichment facilities. All present manufacturers of nuclear reactors, except France and India, are NPT parties or signatories apparently moving toward ratification -- as are all states, again with the exception of France, that are currently engaged in supplying uranium enrichment services or in commercial chemical reprocessing for other countries. France has publicly declared that it will behave as if it were a party to the NPT, but has in practice been lax in adhering to this position in its nuclear export policy.(India is several years from completing its first two indigenously built reactors and several more years away from exporting such facilities.) While this general situation will deteriorate to some extent in coming years, it provides potential leverage in limiting the availability of weapons-grade materials and technologies through nuclear export controls and safeguards. Selective controls over international transfers of delivery vehicles and technologies could be effective in dissuading certain major powers from embarking on an independent nuclear arms program.

3. Many nations with advanced nuclear capabilities may choose not to exercise the nuclear option for political, security, or legal reasons. In Japan, early NPT ratification has suffered a setback, but strong political inhibitions and the interest in maintaining close ties with the U.S., as well as the large portion of its electric power industry that is dependent on continued U.S. nuclear fuel supplies, will work against a nuclear weapons decision. In the FRG, bound by the Brussels Treaty and the European security context, there have been no indications of a serious desire to develop a national nuclear weapons capability and here too there is considerable dependence on continued U.S. nuclear fuel supplies. Furthermore, virtually all nuclear material and facilities that have been sold to NNWS are safeguarded. Consequently the use of nuclear materials or facilities for military weapons purposes would involve the political and legal costs of abrogating an agreement or risking discovery of a clandestine program. For non-NPT parties, the route taken by India in exploding a

"peaceful" device (PNE) is not presently subject to strict legal or meaningful political curbs, but measures are available to narrow the PNE "loophole."

4. U.S. national security objectives can be well served even with an imperfect and incomplete non-proliferation strategy. We might only be able to delay further proliferation, however determined our anti-proliferation efforts may be. Nevertheless, it would serve our interests to defer the disadvantages associated with an expanded number of nuclear powers as long as possible, while seeking to create conditions which might ultimately check further spread and planning an approach for minimizing the instabilities of a more proliferated world. Furthermore, the identity and character of potential additional new nuclear states have important and different implications for the U.S. Whether a 7th or 8th nuclear nation were a friend or adversary and whether it would present a credible global threat, or largely a regional one (as in the case of India), would be important in terms of its direct effect on world stability and American interests, apart from its effect in increasing the risk of still further proliferation.

U.S. Non-Proliferation Strategy

The following discussion presents four fundamental and reinforcing elements of a non-proliferation strategy. Certain specific policy actions judged to be most urgent and important in supporting the elements of this strategy are also identified.

A. Intensify Efforts in Support of NPT. The NPT is the principal legal, political, and technical tool available for dealing with non-proliferation. It not only provides an opportunity for nations to convert a decision to forego the acquisition of nuclear explosives (including PNEs) into an international legal obligation, but it obligates non-nuclear weapon states who join the treaty to accept IAEA safeguards on all their peaceful nuclear activities and requires all parties to place such safeguards on their nuclear exports to any non-nuclear weapon state whether or not party to the treaty. The NPT is the diplomatic centerpiece of worldwide non-proliferation efforts and provides the substantive and procedural framework for undertaking non-proliferation measures generally. A U.S. policy of relative indifference to the NPT at this juncture can seriously damage our ability to cope with non-proliferation, while reinvigorated efforts on the treaty's behalf could help prevent such serious damage and help compensate for the setback represented by the Indian explosion.

Among the more important actions the U.S. should undertake in the immediate future to strengthen the NPT are:*

-- Reaffirming high-level U.S. support for the NPT and the need for widest possible adherence, in order to remove any doubts as to the priority we attach to the treaty and to set the stage for the Review Conference in May, 1975.

-- Consulting promptly with the Soviet Union on key non-proliferation issues, including steps relevant to the Review Conference, approaches to the PNE problem, and handling of demands for security assurances.

-- Reaffirming to the Japanese our intense interest in their ratification of the NPT this year, or certainly in advance of the Review Conference, and seeking early adherence by the FRG and Italy.

-- Seeking NPT adherence by other important non-nuclear weapons states, notably Spain, South Africa, Korea, Brazil, and Argentina.

-- Completing negotiations with the IAEA of the Presidential offer to permit it to apply international safeguards to U.S. commercial nuclear facilities.

-- Developing specific approaches to providing preferential treatment to NPT parties in such areas as the availability of commercial nuclear facilities, fuels, and technological support.

B. International Export Controls and Safeguarded Cooperation. With wider NPT adherence by suppliers and recipients, the number of unsafeguarded facilities in the world can be held to a minimum. But efforts must also continue to be made outside the NPT framework to diminish the ability of non-nuclear weapons states to acquire nuclear materials or facilities relevant to a weapons or nuclear explosive program without appropriate safeguards and conditions. Export controls and safeguards have a negative thrust, but a vigorous program in cooperation with other exporting nations can help ensure that we will exert influence over foreign programs through proper controls, dependence on U.S. supply, and the confidence of a

*A discussion of the NPT, including the status and significance of key nations and technical background on capabilities, can be found at Tab A.

constructive association in peaceful programs. Although our leverage in the commercial nuclear field is diminishing, the U.S. is still the dominant international supplier of nuclear power plants and fuel. Over the longer term, however, failure to achieve the cooperation of even a single major supplier can undercut the effectiveness of any system of export control.

To buttress the international safeguard and control system the following actions should be taken:

-- Approaching the new French Government at a high level on a priority basis with the goal of reviewing our respective export policies and exploring whether France, which has not systematically applied safeguards to its exports, could be induced to join a common effort to safeguard nuclear exports and exports that would help India or others develop an advanced nuclear delivery capability.*

-- Implementing on an urgent basis the recently-approved NSDM 255 which calls for the inauguration of U.S. consultations with other suppliers designed to forge common policies governing exports of special nuclear material, encourage multilateral reprocessing plants, and upgrade worldwide nuclear protection standards.

-- Pressing to have the Zangger (Nuclear Exporters) Committee guidelines on exports that would "trigger" safeguards put into effect and published by the IAEA, and working with the Canadians on the specific question of conditions on reactor and reactor technology exports.

-- Developing a more stringent approach to civilian agreements for nuclear cooperation by applying special control conditions beyond the standard requirements for IAEA safeguards (as in the case of Israel, Egypt, and Iran) not only to requests from Middle East states but also to countries in other sensitive areas of the world.**

*Tab B discusses (1) the question of France (and India) as nuclear exporters and (2) the Zangger (Nuclear Exporters) Committee.

**These conditions include: omission of a commitment to consider transfer of highly enriched uranium; U.S. rights to approve the location of plutonium fabrication and reprocessing facilities and the disposition of plutonium (e.g., insist on external storage); commitments and consultations regarding adequate physical security; and confirmation of no PNE use of U.S.-derived material.

This could cause us to lose 8

-- Incorporating non-proliferation considerations into the AEC's continuing review of U.S. policy with respect to future availability and supply of uranium enrichment services to foreign nations; loss of our position as a commercially attractive supplier of enrichment services could drive customers to deal with other suppliers who may impose less rigorous conditions and afford less leverage in attempts to prevent the acquisition of unregulated weapons grade material.*

C. Develop Approach to PNE Problem that Serves our Non-Proliferation Interests. It is inherently impossible for a non-nuclear weapons state to develop a PNE that does not at the same time provide it with a nuclear weapons capability. Both the U.S. and the U.S.S.R. are bound by the NPT not in any way to assist, encourage, or induce non-nuclear weapons states to manufacture any nuclear explosives device, and non-nuclear weapons states who join the treaty give up their option to do so. Actions that tend to encourage or give international blessing to non-nuclear weapons states developing PNEs discriminate against states who have joined the treaty. However, neither the U.S. nor the U.S.S.R. have fulfilled the expectations of NPT parties that they would make nuclear explosives services available to them for peaceful purposes.

Careful studies are needed to formulate a sensible U.S. PNE policy, but the following elements of such an approach might be considered.**

-- Urging all NPT parties with export potential to obtain assurances from non-treaty countries that nuclear imports will not be used for any nuclear explosives, and making nuclear assistance to the country involved contingent upon receiving such assurances.

-- Examining on an urgent basis the question of whether special measures can be devised to help provide assurance that PNE devices produced by a non-nuclear weapons state could be accounted for and would continue to be channeled to peaceful

---

*The AEC has recently instituted a moratorium on enrichment contracts, since the capacity of existing plants has been reached. The Department is seeking to ensure that foreign policy considerations -- including general political relationships and economics -- will be given weight in satisfying in-hand foreign requests and in facilitating the early construction of additional U.S. enrichment plants.

**Tab C treats PNE issues in some depth.

uses, while avoiding measures which legitimize the peaceful nuclear route and encourage others to follow the Indian example.

-- Consulting with the Soviet Union in forthcoming scheduled talks on such matters as developing a mechanism for supplying PNE services pursuant to Article V of the NPT and considering the explicit extension of a PNE services offer to non-NPT countries which forswear indigenous development of nuclear explosives.

-- Arranging to participate in a feasibility study on a PNE project during the coming year, and devising if possible appropriate procedures (perhaps related to the planned agreement on PNEs under the TTB) for verifying that peaceful nuclear devices were not being utilized in weapons programs.

D. Limiting Damage From the Indian Event. The Indian explosion raises a number of new problems for our non-proliferation efforts including: (1) how to limit further development by India of a nuclear weapons program; (2) how to minimize the risk that Pakistan will develop its own nuclear explosives; (3) how to ensure that others will not follow the PNE route; and (4) how to reduce the likelihood that, over the longer-term, India will become an exporter of unsafeguarded nuclear materials. Strong retaliatory measures directed against India in response to the recent nuclear explosion could harm non-proliferation efforts by making it less likely that India will adopt a safeguarded nuclear export position and increasing domestic Indian pressure for a full-fledged weapons program. On the other hand, acceptance of the Indian decision, condoning the "peaceful uses" rationale, or ignoring the proliferation consequences of the Indian action, could encourage other nations to follow suit.*

In attempting to strike a balanced approach, the U.S. should consider the following measures:

*Tab D pays special attention to the possibility of finding a place for India in the NPT. As shown, this approach is not promising from a non-proliferation standpoint, but less formal and potentially more productive ways of establishing a "constructive niche" for India are outlined.

STATE MTG

-- Persuading other nuclear suppliers to obtain from India the type of assurance with respect to non-use of their nuclear exports in any nuclear explosive that we have asked to receive before our next shipment of enriched uranium fuel for the Tarapur reactors.

-- Securing more binding assurances from India regarding its intentions to eschew the nuclear weapons route, including acceptance of some form of international inspection of PNE tests and acceptance of external safeguards on its reactors.

-- Consulting with other nations on the need to tighten existing safeguard agreements with India, particularly in the case of the Canadian supplied Rajasthan reactor; discussing with the Soviet Union the undesirability of supplying India with long-range bombers; and encouraging other major suppliers to strengthen controls over export rocket equipment and technology to inhibit India from eventually acquiring a sophisticated missile delivery system.

-- Coordinating with the U.K. and Canada on a policy of terminating or restricting training for Indians in nuclear-related fields.

-- Securing Indian agreement to safeguard nuclear exports and to adopt appropriate PNE assistance policies which would not contribute to proliferation through peaceful nuclear explosives programs.

-- Considering specific security assurances for Pakistan, either unilaterally or in conjunction with other nuclear weapons states; obtaining Pakistani assurance not to use supplied or derived nuclear material for explosive purposes; and heading off Pakistani acquisition of a chemical reprocessing plant while offering external reprocessing services.

Other Non-Proliferation Measures

In addition to the policies outlined above, there are other actions which can contribute to an effective non-proliferation approach on a less-urgent basis or which deserve further consideration as longer-term options. These actions include two kinds of measures -- those directed toward containing technical capabilities, and those aimed at reducing incentives for nuclear weapons. Tab E summarizes the substance of these approaches.

Tab A

SECRET

NPT BACKGROUND

1. Treaty Status

The efficacy of the NPT is dependent not only on how well it is implemented but also on how widely it is adhered to by (a) states with the potential of acquiring nuclear explosives, and (b) potential suppliers of relevant materials, equipment and technology. As shown below, the principal potential strategic nuclear powers (i.e., those likely to pose more than a regional threat) are at least signatories to the NPT and, together with certain parties to the treaty, they include all of the world's present suppliers of key nuclear materials, services and equipment other than France. The coming year may well be decisive in whether or not these signatories ratify the treaty. Their adherence is of key importance to the efficacy of the treaty.

The 83 present parties to the treaty include, among others:

-- All Warsaw Pact members except Albania, one noteworthy accomplishment of the treaty being the placing of IAEA safeguards on all the peaceful nuclear activities of Bulgaria, Czechoslovakia, the German Democratic Republic, Hungary, Poland and Romania;

-- all NATO members except the six signatories described below and Portugal, which has not signed it;

-- Sweden and Australia;

-- Republic of China;

-- six Arab states (Jordan, Lebanon, Morocco, Sudan, Syria, and Tunisia; and

-- Mexico, Yugoslavia and Iran.

The 23 states that have signed but not yet ratified the treaty include the following key states, which might well ratify within the next year (although the failure of Italy or Japan to do so could lead the others to withhold ratification):

-- The following NATO members: FRG (whose parliamentary procedures have been completed), the Benelux countries (Italy

whose ratification in this time frame is the most doubtful), and Turkey;

-- Switzerland;

-- Japan and Korea; and

-- Egypt, which will presumably not ratify unless Israel joins the treaty.

Of the non-signatories, Spain is the one with the most extensive civil nuclear program; South Africa may become significant as a supplier of enrichment services, and has an obvious temptation to go nuclear. The other significant ones, in addition to the PRC and France, are

India	Argentina
Pakistan	Brazil
Israel	Chile
Portugal	

There is little chance that they will join the treaty.

The French have repeatedly declared their opposition to proliferation and publicly stated that they would behace as if they were a party to the NPT. They have also required IAEA safeguards on some of their exports. But the lack of their full cooperation is the single greatest obstacle to effective nuclear export controls.

2. Technical Capabilities

The Indian explosion is an illustration of the central fact that peaceful nuclear facilities, in this case reactors combined with a chemical reprocessing plant, are unavoidably capable of producing nuclear weapons material. The reactors, reprocessing plants, and enrichment facilities (based on current technology) required to produce substantial amounts of plutonium or HEU are major industrial facilities, and few of the most likely future proliferators can produce such facilities without major aid, or in less than several years. The Indian program, for example, has been underway for 18 years, and has required, in addition to Canadian, U.S. French, and German cooperation, a vast commitment of resources by LDC standards. Thus supplier policies with regard to states likely to have the motivation but not the technical means, such as Brazil, Egypt and Pakistan, are of great importance in determining the pace of nuclear development and the commitments undertaken by these countries.

To construct nuclear explosive devices, the critical ingredient is the fissile material; either plutonium or U-233 produced during reactor operation and chemically separated from the spent fuel, or HEU, produced by the neutron irradiation of thorium in a reactor, is the least likely route for a potential Nth country to choose because plutonium would normally be easier to obtain (e.g., the technology of recovering plutonium, in contrast to U-233, is generally well established) and less difficult to work with (i.e., the U-232 produced with U-233 introduces serious fabrication and handling problems). Because of these considerations U-233 is not addressed further in this study although it should be recognized that NNWS with thorium reserves might conceivably select that approach. An effort to restrict the technical ability of non-nuclear ability of non-nuclear weapons states to develop nuclear weapons must address both the availability of plutonium or HEU and the availability of equipment and technology to produce these materials.

a. Plutonium Availability. The greatest quantity of weapons grade nuclear material available in the next decade will be plutonium produced in nuclear reactors. A nuclear explosive requires less than 10 kg of Pu. A 1000 NWe reactor produces some 300 or more kg of plutonium per year under normal power operation which must be separated from the spent fuel in a chemical reprocessing plant before it can be used in an explosive.

Of non-nuclear weapon states (including India) with nuclear reactors in operation or under construction, only the following have not yet signed the NPT:

Power Reactors	MWe	IAEA Safeguards	Reprocessing Plant
Spain	7640	On all but one plant	small pilot
India	1200	Not on 2 under construction	one small and one large almost completed
Argentina	940 (under construction)	all	small pilot
Brazil	657 (under construction)	all	--
Pakistan	137	all	seeking one
Research Reactors			
Israel	6MWe 30MWt	yes no	not known
South Africa	20MWt (little Pu production)	all	none
Portugal	No Pu production	all	none

Nuclear reactors are also in operation in the following countries that have signed but not yet ratified the NPT. All are currently under international safeguards, but with the exception of Switzerland, those in Europe are only under regional safeguards, pending the entry into force of the Euratom-IAEA agreement. Reprocessing capabilities in these countries are also shown.

Power Reactors	MWE	Reprocessing Plant
Japan	16,869	pilot and one under construction
Germany	13,697	pilot and OECD*
Switzerland	4,614	OECD*
Belgium	1,740	OECD*
Italy	1,430	OECD*
Korea	1,195	--
Netherlands	534	OECD*

Research Reactors	Reprocessing Plant
Columbia	none
Indonesia	none
Turkey	none
Venezuela	none

*Have access to the multinationally owned OECD reprocessing plant at Mol, Belgium, which is under Euratom safeguards and will be subject to NPT safeguards under the EURATOM-IAEA agreement. However, this facility is to be shut down in mid-1974.

Several critical or potentially critical nations (including Egypt, Israel, Argentina, Brazil, and Iran) are expected to make power reactor purchase choices very soon.

In terms of the weapons potential of power reactors, there are substantial differences between reactor types. The Canadian-type (CANDU) on power refuelled reactor* presents a much more serious problem than the intermittently refuelled, U.S.-type (LWR) for the following reasons: the Canadians have tended to transfer a greater fraction of the technology, including fuel fabrication, needed for independence; the CANDU reactor is better suited to producing weapons grade (low Pu-240) plutonium and produces more plutonium than the LWR reactor; the CANDU reactors are very difficult to safeguard because they require continuous surveillance; and the CANDU reactor can be fuelled with unsafeguarded natural uranium in contrast with LWR's, which are dependent on a supply of enriched uranium. The CANDU requirement for heavy water only partially mitigates this last consideration.

Since there is no current commercial use for plutonium (except to fuel a small number of experimental reactors), most of it has not been chemically separated. The rest is in storage awaiting the advent of commercial reprocessing services. Ultimately the material will be used in plutonium recycle (use of a mixture of plutonium and uranium as fuel), or fast breeder reactors (which can use plutonium as fuel).

For the same reason, the export of plutonium has been very limited to date, but could increase dramatically, with corresponding increases in the risk of theft, seizure or diversion.

b. Highly Enriched Uranium (HEU) Availability

With regard to the technology of uranium enrichment, which represents a one-step route to nuclear weapons material, the situation is quite different from the reactor situation. The direct weapons application of enrichment technology in the nuclear weapons states has led to classification of this technology, and to date there has

* The CANDU represents 800 of the 1200 MW_e in operation or under construction in India.

SECRET

been no known international sale of enrichment equipment or technology. In addition, there is very limited installed capacity in NNWS although this situation is in rapid flux, with several NNWS developing enrichment capabilities (see table below). Thus, enrichment is making the rapid transition from a closely guarded military technology with civilian by-product to a peaceful nuclear enterprise which carries with it an unavoidable military potential. The world's existing and projected enrichment plants are listed below, together with their approximate capacity in separative work units (SWU). (A nuclear explosive requires about 20 kg of HEU. It would take about 241 SWU to produce 1 kg of weapons grade enriched uranium from 186 kgs of natural uranium, assuming a tails assay of .20%U235)

Once an HEU fuel core becomes irradiated in an operating reactor, the risk of its diversion to nuclear explosives is greatly reduced since it would require chemical reprocessing. Thus the main risk of diversion is at the enrichment and fuel fabrication plants, and in transit or in storage before being used in the reactor.

IN OPERATION	METHOD	MILLIONS OF SWU/yr
U.S.	Gaseous Diffusion	12.7
USSR	" "	7.1
France	" "	.4
UK	" "	.4
China	" "	?
URENCO (FRG, Netherlands, UK)	Gas Centrifuge Pilot Plants	.025

Estimated to be in operation by early 1980s

EURODIF (France Spain Italy Belgium)	Gaseous Diffusion	9
URENCO Commercial Plants	Gas Centrifuge	2 in 1980 10 in 1985
South Africa	?	2.4

Almost all commercial reactors currently in operation use only low enriched uranium. Thus HEU is in commercial demand only for certain types of research reactors, for the advanced and commercially attractive high-temperature gas cooled reactor discussed in NSSM 150 and NSDM 235, and for reactors associated with marine propulsion. HEU can be used as an alternative to plutonium in the fast breeder reactor, but only three such reactors (one each in France, the UK and the Soviet Union) are currently in operation, and such reactors are not expected to become commercially competitive in the next decade.

Neither the Soviets nor the Chinese have exported highly enriched uranium. We have done so for research reactors in a number of countries and, in the case of Germany, for an HTGR. (The Japanese have also recently shown interest in an HTGR). The French are currently requesting authorization by the EC Commission to ship 400 kgs of HEU to India, under safeguards, for use in a fast breeder test reactor.

The URENCO gas centrifuge pilot plants are being used for the production of low enriched uranium (less than 5%), but could be switched to production of HEU more readily than the other gaseous diffusion plants listed above. With respect to the South African plant, it is doubtful that it will be operated to produce HEU. Moreover, the South Africans have been very strict about requiring IAEA safeguards on all nuclear materials exports to non-nuclear weapon states and have indicated that the products of their facilities will be subject to safeguards.

During the next five years, we will remain in a good position to establish conditions and safeguards against the diversion of HEU to nuclear explosives, since we will remain the principal source of supply.

However, several major development or trends in the uranium enrichment field have a bearing on the projected technical capabilities of potential proliferators:

-The US monopoly on toll enrichment sales is rapidly ending, with the USSR already competing with the US and Eurodif, and

Urenco definitely supplying a significant fraction of the future market. The roles and extent of other enrichment efforts, involving South Africa, the Canadian Brinco project, Australia, and perhaps Japan and other states, are in the formative stage and will presumably be decided in the next few years. This loss of US monopoly position will decrease US unilateral leverage via fuel supply, and will increase the need for common supplier policies.

-Compounding this problem, excess capacity at existing domestic US plants is becoming rapidly exhausted and the US may not be able to make further commitments within a short time.

The imcomplete definition of the role of US and foreign companies complicates and retards US involvement in cooperative enrichment ventures, and provides further impetus to independent foreign ventures. Thus the non-proliferation objective of maximal involvement in order to maximize leverage on enrichment sales conditions is to some extent being compromised.

Technological developments, relative to gas centrifuge and perhaps of other enrichment techniques, may alter the characteristics (e.g. very large scale plants) of the enrichment industry.

International transfer of enrichment technology is now under consideration by a variety of possible suppliers and recipients.

The international enrichment issue has economic implications (competition, exports) and security implications, as reflected in the Energy Coordinating Group guidelines for possible cooperation in enriched uranium planning, pricing, and technology sharing. This includes a US offer to share gaseous diffusion tehhnology under appropriate controls, which has now been extended in principle to centrifuge technology.

Finally it must be recognized that a potential N^{th} country might be able to obtain enriched uranium through inefficient methods if it were willing to pay the price. This country might well be able to develop a primitive centrifuge or nozzle device shich would be able to provide enough enriched uranium for one or more weapons.

Tab B

SECRET

EXPORT CONTROL ISSUES

1. France and India as Exporters

The greatest potential obstacle to effective export controls in the nuclear field has been the lack of cooperation by France. This is particularly serious because France can export practically the full range of nuclear materials and equipment and, when the EURODIF enrichment plant is built, it will become an important supplier of enriched uranium.

The French have repeatedly declared their policy to be against nuclear proliferation and publicly stated that they would behave as if they were a party to the NPT. They have on occasion required IAEA safeguards on their nuclear exports. The difficulty lies in the fact that they do not do so in some cases (such as the power reactor in Spain, the Dimona research reactor in Israel and the non-nuclear materials they have supplied for the unsafeguarded Indian reactors at Madras) although some form of bilateral safeguards may be involved; that they have not taken a clear position about diversion to PNEs; that they have not agreed to follow the guidelines on which consensus was reached in the Zangger (Nuclear Exporters) Committee as discussed below, and that they have not heeded requests by their EC partners on that committee that materials and equipment imported from such countries will not be reexported without safeguards.

If the new French Government were willing to be more cooperative in these respects--or, optimally, were willing to adhere to the NPT (which would cost them no more, since they are a nuclear weapon state) this would constitute a major improvement in the present non-proliferation picture. Urgent consideration should be given to a high-level U.S. approach urging more active and specific French coordination, of non-proliferation policy through the Zangger Committee and bilateral export and safeguards policy, with other suppliers.

Although President Giscard d'Estaing has said that France will become more active on arms control issues, we as yet have little idea as to what this statement means in terms of practical policy. There is only fragmentary positive evidence: Giscard's announcement that France

will cease atmospheric testing after this year is one example. In addition Goldschmidt, the Director of the French CEA, has told US Ambassador to IAEA Tape that the initial fuel loading of the Indian version of the Rhapsodie experimental fast breeder as well as its plutonium product would be under safeguards.

From the point of view of US non-proliferation interests, we may find it difficult to get French acceptance across the board for controls and safeguards of all nuclear exports (i.e., Zangger Committee). We should nevertheless make the try and, at a minimum, obtain a commitment from the French that they will apply IAEA or equivalent safeguards for all exports of fissionable material. Of particular importance is the need to ensure that France will not undercut efforts to contain the Indian program and deal with the potential Pakistani and Argentine-Brazil proliferation problems.

India is probably not a viable competitor for major foreign reactor sales in the near future, as her production capability is limited, and she has had substantial problems with construction of her own Madras reactors. However, India may well offer to supply some parts and technical assistance in support of CANDU reactor programs of other states as she may have done in the case of PNEs. Argentina is an example of a possible customer, and India and Argentina have recently concluded an agreement on nuclear cooperation. Any such substantial Indian aid would only hasten the independence of states like Argentina from their primary supplier, Canada. There is probably no chance of preventing Indian supply of such items. Obtaining their agreement to require IAEA safeguards would also be very difficult. As discussed in Tab D, attempts to include India in a suppliers group or to coordinate export policies may conflict with our desire (a) not to accord India any added status due to her nuclear explosion and (b) to deny exports to India for unsafeguarded facilities.

2. The Zangger Committee

Non-nuclear weapons states (NNWS) who are party to the NPT undertake to place all their nuclear material under safeguards (with the exception of non-explosive military applications, such as ship reactors). The objectives of the IAEA safeguards is to detect the diversion of nuclear material, and by threat of detection to deter diversion.

All parties to the NPT undertake to export nuclear material or equipment for producing processing or using nuclear material to non-NPT parties only when IAEA safeguards will be applied to the material supplied, produced or processed. The imprecise definition of those items whose export should "trigger" safeguards requirements in these instances poses a danger that suppliers will compete in the international market at the expense of safeguards.

To preclude this, an ad hoc group of western supplier nations (the Zangger Committee or the Nuclear Suppliers Group) has drawn up an agreed minimum list of those exports which would require safeguards. Now joined by the USSR, the Committee is comprised of Australia, Canada, Belgium, Finland, FRG, Italy, the Netherlands, Norway, Sweden, Switzerland, USA, USSR, UK, South Africa, Denmark and Japan; New Zealand has applied for membership.

In the Zangger Forum, the U.S. has unsuccessfully pressed for a more comprehensive list. Moreover, France has not yet indicated willingness to abode by the common list. It has been the view of most members of this committee that technology transfer cannot be covered by IAEA safeguards.

In the aftermath of the Indian explosion there may be a possibility of somewhat broadening the coverage of the list to include more exports such as particular metal alloys used in reactor fuels. A further possibility would be to reverse the committee opposition to inclusion of some items of technology as trigger items. Based on the Canadian experience with India, in which a safeguarded reactor (Rajasthan) is being copied by the recipient to produce an un-safeguarded reactor (Madras), we might suggest an agreed NPT interpretation under which future reactors supplied to non-NPT parties should be accompanied by agreement of the recipient to place under safeguards future reactors which use technology derived from the supplied reactor.

The recent Canadian supply licensing agreements with Argentina are an immediate case in point. In view of the Canadian request for an exchange of views on the implications of the Indian event they might be receptive to this idea. It will, however, be difficult or impossible to modify any existing agreement to add on such conditions, although Canada has indicated it may wish to justify its contact with Argentina to specifically exclude PNE development. There is as yet no instance in which a non-NPT party NNWS

has derived unsafeguarded reactors from U.S. sales; so the suggestion should not be immediately embarrassing to us. However, in this connection the role of foreign licensees of U.S. reactor vendors, particularly in France, would have to be carefully examined. Also, U.S. regulations on private transfer of reactor technology might have to be altered if such an approach were taken.

The Zangger Committee efforts have been moving forward slowly. There has been an absence of high level political support for the efforts of the group with most of the members apparently concerned primarily with protecting economic-commercial interests. The lack of French participation has also inhibited progress and emphasized the need for achieving unanimity among suppliers if export controls are to be effective. If the major suppliers, in the aftermath of the Indian test and in view of Canada's interest in raising that matter at the Zangger Committee, could place high priority on this activity as a non-proliferation tool, a major step forward would have been taken, especially if French participation is achieved. At a minimum the "trigger list" should be formally submitted to the IAEA. Ideally it should be expanded considerably.

Other topics for consideration by the Zangger Committee could include advance notification of nuclear exports by suppliers (which could be done through the IAEA) and the unsafeguarded military-use loophole of the NPT. Finally, this Committee -- or perhaps a newly-structured Exporters Group which could be established at higher levels with U.S. initiative -- can become a mechanism for coordinating the range of multilateral control mechanisms outside the NPT, as discussed below.

Tab C

SECRET

PEACEFUL NUCLEAR EXPLOSIVES

A nuclear explosive device, regardless of its intended purpose, can be used as a nuclear weapon. Moreover, the technology for making such devices for peaceful purposes is indistinguishable from the technology for making nuclear weapons.

Some peaceful applications of nuclear explosions require large numbers of very advanced nuclear explosives. For example, the nuclear excavation of a canal may well involve hundreds of thermonuclear explosives. (The need for thermonuclear devices in such cases is dictated by the need to minimize radioactive debris, some of which is necessarily released into the atmosphere by cratering applications of PNEs.)

Some other applications are possible with a fission explosive. These applications may present questions of cost-effectiveness and acceptability. The Indians have expressed an interest in mining applications, which would involve breaking up ore by the use of nuclear explosives. Although the Indian fission device is probably not optimized, a fission device could be used, and is thought best suited for certain mining applications, i.e., in situ leaching. However, in other peaceful applications such as over burden removal of a fission device would create unacceptable contamination problems, at least by our standards. Storage cavities could also be created by fission devices, but their utility (except possibly for nuclear waste disposal) could be limited by the contamination problem, unless effective methods, which could be costly, and themselves present environmental problems, were taken to decontaminate them. Obviously, the technical and economic feasibility of such uses and how they compare with alternative non-nuclear methods have yet to be established.

As for oil and gas stimulation, they have cirtually no utility for a country such as India which has little in the way of known deposits of these hydrocarbons. Moreover, where they are usable, their serious exploitation would involve large numbers of explosions and, where deep emplacement was required, advanced designs.

Thus, laying aside the controversial question of whether PNE applications are both feasible and desirable from an economic and public acceptance point of view when compated to alternative ways of accomplishing the same ends, it is clear that development of a comprehensive PNE capability requires vastly more resources and know-how than the explosion of a single nuclear device. In fact, it is questionable whether the potential PNE benefits will justify the costs of the Indian nuclear explosive program.

SECRET

Against this background, the following observations may be made about the implications of the Indian explosion:

a. It represents what we would consider a very limited PNE capability, and considerable further development effort in the face of questionable economic justification would be required to give them a sophisticated capability. The Indians will certainly not be in a position to offer meaningful PNE services to other countries in the foreseeable future.

b. It does mean that the Indians have, at least, a rudimentary nuclear weapons capability that could be used against a neighbor such as Pakistan.

Nevertheless, whether through ignorance of the first fact or a desire to demonstrate a nuclear weapons capability with a PNE cover as the Indians appear to have done, there is a clear risk that other countries will be tempted to follow the Indian example. We will examine below some possible approaches to dealing with this problem.

(1) Reenforcement of Suppliers' Restrictions Against Use of their Exports for Making Any Nuclear Explosive Device.

The U.S., the USSR and the UK are obligated under the NPT "not in any way to assist, encourage, or induce any non-nuclear-weapon State to manufacture or otherwise acquire nuclear weapons or other nuclear explosive devices, or control over such weapons or explosive devices." (Article I.)

In addition, they are obligated not to export to any non-nuclear-weapon state nuclear materials or special equipment or material for the processing, use or production of special fissionable material, unless the nuclear material involved is subject to IAEA safeguards against its diversion to use in any nuclear explosive device.

Thus we have a clear legal obligation to obtain appropriate reassurance that none of our nuclear exports will be so diverted. This is not a problem where the recipient is a party to the NPT, since such recipients are bound by the treaty not to manufacture or otherwise acquire any nuclear explosive device. But where the recipient is not a party to the NPT, further reassurances are needed. It seems clear that we should condition the continuation of our cooperation with such countries on obtaining such reassurances that US-origin material will not be used in this manner. We have made a start in this direction in the past few years,

both by diplomatic notes at the time new agreements with NPT holdouts are signed, by the statement which Secretary Kissinger authorized our IAEA representative to make at the June, 1974 meeting of the IAEA Board of Governors and by including this requirement in the guidelines issued by the Zangger (Nuclear Exporters) Committee. Prompt efforts to see that all NPT parties implement those guidelines, and, if possible, to persuade the French and Indians to abide by them as well, clearly seem advisable.

(2) Implementing Article V of the NPT

In compensation for giving up the right to develop their own PNEs, the non-nuclear-weapon states that signed the NPT were assured, in Article V, that potential benefits of applications of such explosions would be made available to NPT parties by the nuclear weapon states parties to that treaty at the lowest possible cost, excluding any charge for research and development.*

While the U.S. has had a PNE developmental program for some time, it has not yet developed it to the stage of commercial application although the Soviets claim to have reduced four applications to practice. Neither the US nor the USSR has conducted any explosions for any other state. We have made public all available information on PNE applications (other than information relating to the design of the devices), and the Soviets have made available some information of the same sort.

We have also provided some limited assistance in feasibility and pre-feasibility studies of PNE projects suggested by other countries. Unfortunately, most of these have been nuclear excavation projects, which present a potential problem of compliance with the provision in the Limited Test Ban Treaty on causing radioactive debris to cross international boundaries. Hence, our general reaction to such requests has been negative.

*The negotiating history of this article made clear that we considered this understanding to apply when and if applications consistent with test ban restrictions proved economically and technically feasible.

The principal arguments for going further and actually joining more readily in PNE studies and, if particular projects appear feasible, actually carrying out a nuclear explosion for an NPT party in the relatively near future are: (a) that it would demonstrate that the parties to the NPT are getting their quid pro quo; and (b) that it would make the treaty more attractive to non-parties which are genuinely interested in obtaining PNE services, and offset the argument in such countries that an indigenous PNE development is required because PNE services would not be made available by the U.S. and the U.S.S.R. under the treaty.

In assessing these arguments, it is important to review which countries appear to be genuinely interested in PNEs, and what their options are.

There seems to be little or no interest in PNEs in the industrialized countries, such as Japan and the European states. This is probably attributable to the potential environmental problems that PNEs would present in heavily populated regions. France, however, has shown an interest in using them to produce underground storage cavities for off-shore oil storage -- a project which may prove of doubtful acceptability to other states in that region.

The interest shown by NPT parties and signatories has not been intense. The only NPT parties which have shown an active interest in such applications are Australia (a proposed harbor study that was never conducted years ago and a suggested use for nuclear waste disposal cavities); Madagascar (a harbor in which they apparently lost interest); Thailand (a multi-billion dollar canal across the Isthmus of Kra); and Canada (a recent request from a Canadian company for examination of the feasibility of using PNEs to extract oil from Canadian tar sands). The most serious proposal by NPT signatories who have not yet ratified the treaty involves the excavation of a canal connecting the Mediterranean Sea with the Qattara depression in Egypt. Both the Egyptians and the Germans who have been assisting Egypt's feasibility study on this project have requested our assistance in evaluating this project.

Of the NPT holdouts, Argentina and Brazil have been the most vocal about preserving the option to develop their own

PNEs, but they are far from being able to conduct such a program at this time.

Since the Soviets seem more interested in PNEs that we have been, and have developed some aspect of this technology somewhat further, it is essential that we compare notes with them on how we plan to deal with the Article V problem in the coming year, for it would be undesirable for the two supplier states to be working at cross purposes, especially in the year preceding the 1975 NPT Review Conference.*

The range of options open to a state that is interested in PNE applications is rather narrow. If it is an NPT party, its only recourse is to obtain such services from the U.S. or the U.S.S.R. (the U.K. has not developed PNEs and the PRC apparently has not contemplated in Article V, or to obtain them from the French (who, to the best of our knowledge, have not developed this technology to any extent, or the Indians (who will have very limited capability for some years). If if is not an NPT party, it can seek such services from the nuclear weapon states (but will presumably not be given the same priority by the U.S. or U.S.S.R. as non-nuclear NPT parties) or develop its own indigenous PNE capability. As pointed out above, the overall costs of the latter course are likely to outweigh any potential PNE benefit sought.

Thus, while we and the Soviets may well be criticized for failing to meet the expectations generated by Article V, the desire for PNE services hardly seem to be a driving force among NPT parties or signatories. Among non-signatories the main motivation to develop PNEs would appear to be for prestige or as a guise for demonstrating a nuclear weapons capability.

Carrying out nuclear explosions pursuant to Article V would not eliminate this motivation. But some modest demonstration that we recognize our obligations under Article V could be helpful in stemming criticism from NPT parties and in making the treaty more attractive to prospective parties.

(3) Stress the Limitations of PNEs.

International discussions of PNEs have been conducted largely by proponents of such programs, and have

*The Soviets have agreed to hold such consultations in November.

tended to stress their potential benefits. There has been relatively little discussion of the potential problems involved, such as (a) the radioactive debris from nuclear excavation applications, (because of a lack of consensus within the U.S. Government on how to handle this problem), or (b) the difficulty we experienced with our last gas stimulation experiment. Fuller discussion about such problems as the applications of a limited capability compated to the comprehensive program might help to moderate the expectations of NPT parties and others who have shown an interest in PNEs, and put the Indian explosion in perspective.

Here again, however, advance coordination with the Soviets on handling this problem seems necessary to avoid the confusion that could be caused by inconsistent approaches.

(4) Safeguards on PNEs

It is tempting to try to find a way in which we could accept the Indian declarations that their interest in nuclear explosions was confined to peaceful applications, and devise safeguards that would attest to this fact. In doing so, we would have to be mindful of our NPT obligation not to encourage or assist any non-nuclear weapon state to manufacture or otherwise acquire nuclear explosive devices. We should also avoid any action which will be resented by parties to the NPT (who have forsworn development of their own PNE capabilities) or will undercut our legal position that U.S.-origin materials may not be used in nuclear explosives.

The arrangements for observation of PNE applications thus far worked out by the IAEA are not really suitable for this purpose, since they were designed to ensure that the nuclear weapon state conducting the explosion did not release custody or control of the device to the host state. In the Indian case, this could only apply if India conducted an explosion in another country, which, as indicated above, it is unlikely to do for some years.

While such observation arrangements would also provide some evidence that the explosion was carried out in a manner consistent with the declared peaceful purpose, they would not affect India's use of such explosions to further its nuclear weapons technology.

It is inherently impossible to permit device development for PNEs that does not have a carry-over to nuclear weapons

development. In NSSM 128, an elaborate system was suggested for monitoring PNE applications of existing types of nuclear explosives to minimize the risk that their use in PNE projects could advance nuclear weapons technology. But this system presupposes that optimal devices for PNEs have already been developed -- a situation which clearly does not now obtain in India, and one which we would not like to see, since it would be tantamount to an advanced nuclear weapons capability. If the Indians were confined to use of devices such as their initial one, they could carry out only a limited PNE application.

While it is thus difficult to conceive of truly adequate safeguards on PNEs, consideration might be given to safeguards such as the following designed to provide at least accountability for PNEs:

Provision would be made for IAEA safeguards on all Indian facilities unless and until material was specifically withdrawn for the declared purpose of fabrication into a PNE, and such declaration would be accompanied by a formal guarantee to the IAEA that neither the material involved nor the PNE when completed would be used for any military purpose. Such an arrangement might further provide for special safeguards such as the following on any material so withdrawn: (a) continuous accountability for the material except when actually in the process of fabrication into the device; (b) immediate notification to IAEA on completion of the device, together with an opportunity to verify the amount of nuclear material in it (assuming this would be possible in a manner that did not reveal design information); (c) IAEA sealing of the device and monitoring of its storage pending its actual use, although custody and control would remain with the Indians and appropriate precautions would have to be taken to avoid revelation of design information; and (d) advance notification of the purpose, time, and location of any intended explosion of the device, which would be subject to international observation and related arrangements comparable to those which the NWS have agreed to accept in the case of PNE services they provide under Article V of the NPT.

But it must be recognized that even if such special safeguards proved feasible and acceptable to the Indians, they could result in encouraging Argentina or Brazil to follow the Indian example since they would in effect legitimize indigenous PNEs for non-parties to the NPT, while leaving NPT parties bound not to develop them. It would not,

however, preclude us or other NPT parties from requiring assurances that our exports would not be used for this purpose.

(5) U.S. Renunciation of PNEs

While an outright renunciation of PNEs would remove the problem of discrimination, it would present the following difficulties:

(a) The Soviets would probably not be willing to renounce PNEs;

(b) we would be likely to face complaints that we were reneging on NPT Article V, even though the British, who are also a nuclear weapon state, and thus have the same legal obligations as we, have no PNE program and have received no complaints;

(c) we would be foreclosing a future option to determine whether PNEs may prove to have attractive applications;

(d) if a state were genuinely interested in PNE applications, it might lead that state to develop its own PNE program or to seek help from France or India.

But deterring the actual execution of nuclear excavation explosions -- even though this is the type of application in which the greatest interest has been expressed -- could be justified on the ground that they raise unsolved questions of compliance with the Limited Test Ban Treaty and possible environmental concerns.

(6) Further Test Ban Constraints

A comprehensive Test Ban Treaty would, in order to be verifiable, either have to prohibit PNEs or make some special provision for the use of existing types of PNE device, since device development could not be permitted by a CTB without creating an unacceptable loophole in it. This same problem exists under the TTB agreed upon in Moscow. Procedures for permitting U.S. and Soviet PNEs above the threshold could provide precedents for observations of Indian explosions. But there is a danger of such mechanisms legitimizing India's program, weakening our position that PNEs cannot be technically distinguished from nuclear weapons, and leading other states to follow a PNE route. Provisions of PNE services consistent with the TTB could alleviate this problem. In any case, we need to orchestrate our PNE policy under the TTB with our proliferation policy.

Tab D

SECRET

REACTING TO THE INDIAN DEVELOPMENT

The Indian nuclear explosion raises a number of new problems for non-proliferation efforts, which are briefly discussed below.

-- How to limit further development by India of a nuclear weapons capability

There is probably nothing we can do that would compel India not to use the unsafeguarded plutonium it has accumulated (enough for 10-15 explosives) for further nuclear explosives, although it is likely that its time is needed to evaluate the results of each experiment and plan the next accordinaly. (The only circumstance under which Mme. Ghandi recently declared India would be prepared to give up nuclear testing would be if all NWS did so. This appears to mean not only a CTB, but cessation of French and Chinese testing, with no one retaining the right to perform PNEs).

In the unlikely event that India could be persuaded to put all its peaceful nuclear activities under safeguards, with special provisions for PNEs as described below, it might at least be possible to maintain accountability for any devices produced up to the time of their actual detonation in an internationally observed "peaceful" application. While this might hinder any hostile use of the explosives, it would not prevent development of an Indian nuclear weapons capability, and it would tend to legitimize the India-type PNE route, thus making it easier for Argentina, Brazil and others to follow suit.

Limitations on the training of Indian nuclear scientists by NPT parties and others would also be of some help.

Economic considerations will make it unlikely that India will develop a thermonuclear capability, or a

SECRET

sophisticated delivery system in the next decade, and export control efforts aimed at restricting their development of such delivery capabilities could help keep the Indians from becoming a strategic nuclear power.

-- How to minimize the risk that Pakistan will develop its own nuclear explosives.

The most urgent problem in this connection is to try to prevent Pakistan from acquiring an indigenous chemical reprocessing capability (from which it could produce weapons grade plutonium) or from acquiring weapons grade materials from others. It is currently seeking to obtain such a reprocessing plant, and has approached the U.S., Japan, Belgium and perhaps others. It also appears to be seeking plutonium from the PRC. Immediate efforts to persuade the potential suppliers to withhold such assistance, and to offer Pakistan an alternative method of reprocessing its nuclear fuel abroad (which would make more commercial sense), with special provision for its storage, seem required.

A consensus could be developed in the Zangger (Nuclear Suppliers) committee that no member would supply Pakistan with an indigenous reprocessing plant or technical assistance in building one. Technical assistance and training of Pakistanis in reprocessing or aspects of nuclear technology relevant to explosives could be avoided. We could also make efforts to ensure that all nuclear activities in Pakistan are safeguarded against use in any nuclear explosive.

On the political side, Pakistan's motivation to acquire nuclear weapons could be reduced by satisfactory guarantees by India that it would not produce, stockpile, or deploy nuclear explosives for military purposes and would not use or threaten to use such explosives against Pakistan. (Such a guarantee might be a mutual one, and might also commit each party to the functional equivalent of certain NPT provisions, as described in subsection (1) below). Another possibility would be accountability controls on PNEs of the type mentioned in paragraph 1 above. If any further security assurances, or even air defenses, could be obtained from the superpowers, this would also seem helpful.

One other step which would at least help insure that Pakistan did not conduct atmospheric nuclear tests would be its ratification of the LTBT, which it has only signed to date.

-- How to minimize the risk that others (such as Argentina and Brazil) will follow the Indian-type "PNE" route.

This involves trying to preclude direct Indian assistance in such efforts; ensuring that such countries are committed not to use materials of foreign origin for this purpose (See section B below): and efforts to avoid their acquiring a purely indigenous capability to produce weapons grade material.

-- How to minimize the risk that India will make nuclear explosives (or the technology for making them) available to other NNWS.

This subject is addressed in part in subsection (1) below and in part in Section B below.

-- How to minimize the risk that India, as an eventual exporter of nuclear materials and equipment, will undercut international nuclear export control efforts designed to require safeguards and meet other non-proliferation concerns.

While India will not be in a position to export much in this field for several years, it could become a troublesome supplier.

This subject is addressed in subsection (1) below.

-- How to minimize the adverse impact of the Indian explosion on efforts to obtain the widest possible adherence to the NPT.

The potential impact is of three kinds: the Indian explosion provides an additional argument to opponents of the treaty in states where ratification is under consideration; it makes the indigenous PNE route look more attractive, especially in view of the lack of any severe response by the world community; and it makes further proliferation seem more likely and attempts to control it seem less feasible. But this damage could be limited by the steps suggested in this paper and by a revitalization of our efforts to obtain key ratifications of the NPT and to demonstrate its continued importance and efficacy, both as an arms control measure and as a measure regulating international nuclear commerce.

These considerations lead to the more general question of whether there is some constructive approach to deal with a state which maintains that it is developing nuclear explosives purely for peaceful purposes. What should be sought is a way to hold them to their declared policy, while avoiding giving them a status that would be attractive to others who might be tempted to follow their expmple. The following subsections examine some possibilities.

1. NPT or Some Functional Equivalent. It would be neither possible nor desirable for India to join the NPT as a nuclear weapon state, for the following reasons:

(a) The NPT defines a nuclear weapon state as one which had manufactured and exploded a nuclear explosive device before January 1, 1967, and thus would have to be amended and resubmitted to over 80 legislative bodies to do so.

(b) The treaty does not prohibit a nuclear weapon state from developing nuclear weapons or other explosive devices.

(c) The treaty does not require safeguards in a nuclear weapon state or on exports to nuclear weapon states.

On the other hand, joining the NPT as a non-nuclear weapon state would require India to forswear the further development of indigenous PNEs, and thus reverse the policy which it has proclaimed to the world at considerable political cost. Moreover, a non-nuclear weapon state party to the treaty has no obligation not to assist another non-nuclear weapon state in the manufacture or acquisition of nuclear explosive devices, although nuclear materials and equipment provided to a NNWS by any party must be subject to safeguards.

Renewed efforts should of course be made to persuade India to put all its peaceful nuclear activities under safeguards (including a tightening up of the Canadian-Indian agreement covering the Rajasthan reactors), although it has gone to great pains to avoid this result in the past. In addition to this general reluctance, there is the problem of whether safeguards that permitted diversion to PNEs would be of any value, since PNEs are indistinguishable from nuclear weapons. A conceivable approach that would involve special safeguards on PNEs is described in section (4) below. But apart from the feasibility and acceptability

to the Indians of this approach, it would clearly not prevent them from continuing a nuclear explosive development program. Its advantage would be that it would face up to the fact that obtaining a reversal of the Indian decision is unrealistic, but it would have the major disadvantage that it would establish a pattern that would make it legitimate for NPT non-signatories to follow the Indian example, while NPT parties are precluded from doing so.

One provision of the NPT that is applicable to both nuclear and non-nuclear weapon states is Article III (2), which obligates all parties to require IAEA safeguards on their exports of nuclear materials and equipment to non-nuclear weapon states. Indian adherence to an undertaking such as this would obviously be desirable, since it would help reduce the risk that India would become a source of further prolifreation; but India might well object even to this on two grounds:

(a) it requires them to discriminate between exports to NWS and NNWS, which is a feature they have criticized in the NPT; and

(b) they would be unlikely to accept the proposition that such safeguards must ensure that their exports were not diverted to PNEs, since this would be inconsistent with their public stance in favor of indigenous PNEs; and safeguards not based on that proposition would be an invitation to proliferation.

The first of these problems could be solved by providing for safeguards on India's exports to nuclear weapon states as well as NNWS. (The Indians insisted on reciprocal safeguards rights in their agreement with the United States, as well as that with Canada, and they are unlikely to make nuclear exports to the USSR, where this could present difficulties.) The second problem is more intractable, for the reasons cited above.

While consideration might be given to inviting the Indians to join the Zangger (Nuclear Exporters) Committee, there are several strong counter-indications:

(i) That committee is the principal instrument for ensuring that appropriate conditions are placed on exports to India and other NPT holdouts; (ii) India could destroy the consensus that has been reached in that committee that exports must be conditioned on no

diversion to PNEs; and (iii) India is unlikely to become a large enough supplier of nuclear materials and equipment to justify accepting the preceding disadvantages.

In deciding on how to obtain a functional equivalent of NPT requirements from the Indians, a key question is how to persuade the Indians to take any such steps. They will doubtless reject any attempt to impose a ready-made solution on them, but might be amenable to consultations which give them an opportunity to make their own suggestions as to methods of reassurance that they might consider. Thus the foregoing discussion is simply intended to indicate the kinds of outcome that might serve non-proliferation interests, and those which would not do so.

2. Undertakings Against Military Use. Another approach would be to seek to codify the Indian pledge that it would not use its nuclear explosives for any military purpose.

There is some indication that the Latin American countries may seek to obtain Indian adherence to Protocol II to the Latin American Nuclear Free Zone Treaty. This would entail a pledge by India not to contribute to any violation of that treaty (although Argentia, Brazil and Chile are not yet bound by that treaty and the first two maintain that it does not proscribe indigenous PNEs); and not to use or threaten to use nuclear weapons against parties to the treaty. To maintain consistency with its stated position, India would presumably have to couple its ratification with a statement that it did not intend to acquire nuclear weapons.

Whether a more generalized pledge of this sort--e.g., one that covered Pakistan, could be made should also be explored.

The disadvantage of these courses of action is that they would accord India the prestige of being treated as a nuclear weapon state and would tend to undermine our ability to maintain that there is no distinction between PNEs and nuclear weapons.

SECRET

LONGER-TERM OPTIONS

A. Measures to Contain Nuclear Weapons Capabilities

Strengthen the effectiveness of the IAEA safeguards system. The increasing burden on the IAEA to administer international safeguards within and without the framework of the NPT will require sustained efforts to ensure that the Agency continues to maintain the technical and financial resources required to support its mission. Concerning the latter, the IAEA faces a probable financial crisis due to efforts by the LDCs to attempt to modify the method of financing safeguards by shifting a greater proportion of the burden to the industrialized nations, who place greatest demands on the agency for safeguards resources. To assure the future viability of IAEA safeguards, it is recommended that:

a) Studies be initiated within the U.S. to investigate alternative contingency schemes for IAEA financing, including the possibility of our assuming a larger share of this burden. The financing of safeguards presents potential international and Congressional problems, even though the amounts involved are negligible compared with other U.S. national security expenditures (the entire IAEA safeguards budget for 1975 being $5,000,000).

b) The U.S. intensify its efforts to cooperate with the IAEA in the development and utilization of improved safeguards techniques and procedures.

c) That efforts be made through the IAEA to make it clear that continued nuclear supplies from NPT parties are dependent upon compliance with safeguards.

2. Explore the feasibility of conditioning the issuance of the U.S. Government of foreign licenses to reproduce equipment design on the receipt of peaceful guarantees and possibly an agreement to submit the end product to safeguards. The practicability and utility of this approach is open to question, but it deserves study in view of the growing interest on the part of many nations in building reactors indigenously and the prospect of unsafeguarded reactors appearing in important non-nuclear weapons states remaining outside the NPT. If feasible, such controls could be discussed with other reactor suppliers, notably the Canadians and the French.

3. Study the possibility of our Export-Import Bank conditioning nuclear power loans on acceptance by the borrower of special controls on the equipment and materials involved. Such exports require IAEA safeguards under an Agreement for Cooperation. But the vehicle of financing could afford the opportunity to impose special conditions on the location of disposition of plutonium and physical security for nations. The impact of following this approach on the competitiveness of U.S. nuclear industry and the need to coordinate policies with financing institutions of other suppliers are among some of the important questions to be addressed.

4. Be more rigorous in placing controls over the degree which we train foreign nationals from lesser-developed countries of particular concern as potential nuclear weapons states in selected details of nuclear energy development. This approach, while holding some non-proliferation potential, could run counter to our basic desire for peaceful nuclear cooperation and require support from other major nuclear powers to be reliable over the longer-term.

5. Review our export policies affecting aircraft and missile delivery systems in light of the connection in certain cases between the incentives and capabilities for additional nations to develop nuclear weapons and the availability of appropriate means of delivery. The dual-purpose nature of many aircraft and rockets which have civilian applications and military capabilities as well as the wide availability of aircraft delivery systems, if not longer range missiles, suggest that the feasibility of this approach needs careful study. The success of this approach will depend heavily on the cooperation of other potential supplier states.

B. Measures to Reduce Incentives for Nuclear Weapons

1. Study as a matter of urgency ways of according preferential treatment to parties to the NPT. During the Treaty negotiations, it was indicated that parties to the Treaty would derive some preferential benefit in nuclear assistance. Article IV of the NPT, which covers cooperation in peaceful uses (other than PNEs), makes this relatively explicit, and Article V gives NPT parties special rights to PNE services. However, apart from considering NPT status in specialized export requests (for example, highly enriched uranium) we have done little if anything to give these promises credibility. At the same time, there is a danger that

preferential treatment to treaty parties would result in our losing the ability to enter into productive and safeguarded associations with nations who choose to remain outside the Treaty, and thus undercut our broader non-proliferation goals. The resolution of this dilemma is one of the major areas requiring intensive policy analysis.

2. Undertake measures designed to accommodate increasing demands on the part of non-NPT parties for security incentives to join the Treaty and for a balance-of-obligations by the nuclear weapons states. These concerns will be relevant to the Review Conference and will also affect longer-term non-proliferation prospects and the continued viability of the NPT.

In this connection, the U.S. should continue to work toward further progress in effective arms control and publicize the benefits of activities such as SALT, MBFR, and CSCE. Particular emphasis should be given to the value of any TTB which might be negotiated in the near-term and the possibility of a CTB. We must recognize, however, that the scope of attainable agreements are likely to fall short of what many NNWS profess to desire for an adequate balance of obligations.

In addition, we should consider:

a) Raising with the U.K. and the U.S.S.R. the possibility of strengthening the language of our 1968 parallel U.S. security assurance declarations (which amounted to an expression of intent to seek appropriate Security Council action in the event that a NNWS party to the NPT becomes the victim of a nuclear threat or attack).

b) Seeking support of other nuclear powers (including India) for parallel non-use undertakings, possibly on the basis of the formula proposed by the U.S. in 1968 (covering non-use against NNWS not engaged in aggression by a nuclear power).

c) Reiterating our support for the nuclear free zone concept applied to appropriate areas, and particularly lending support to the recent expressions of interest by Nigeria in an African nuclear free zone.

3. As a longer-term but potentially useful policy we should develop international "public education" efforts by:

a) Assuming a posture which plays down the utility

of nuclear weapons in international relations. We should particularly avoid policies which suggest that nuclear weapons are signs of political power or are becoming more useable as substitutes for conventional arms.

b) Mounting an effort to highlight the costs, technical difficulties, and risks involved in a nuclear weapons decision. Support of an updated version of the 1968 U.N. report on this subject would be useful.

4. Study the longer-term utility and practicality of establishing prospective sanctions against potential nuclear powers in order to help deter nations from moving in this direction. One possibility would be to establish prospectively that any future explosion by a NNWS would result in a cut-off of nuclear cooperation or a commensurate reduction in foreign aid (where relevant and to the extent we are legally entitled to do so under the applicable assistance agreement). Financial disincentives might not be decisive, but could have an effect on some countries who were waivering over the decision on whether to follow this route--especially if several aid-giving states made this clear. However, the actual execution of sanctions may pose difficulties and dilemmas.

Department of State

TELEGRAM

CONFIDENTIAL 3440

PAGE 01 IAEA V 06175 01 OF 02 111702Z

43
ACTION ACDA-19

INFO OCT-01 ARA-16 EUR-25 EA-11 NEA-14 IO-14 ISO-00 AF-10
CIAE-00 DODE-00 PM-07 H-03 INR-10 L-03 NASA-04
NSAE-00 NSC-07 OIC-04 SP-03 PA-04 PRS-01 RSC-01
SCI-06 SS-20 USIA-15 SAJ-01 SAM-01 ORC-01 /201 W
088111

R 111437Z JUL 74
FM USMISSION IAEA VIENNA
TO SECSTATE WASHDC 4716
INFO AEC GERMANTOWN
AMEMBASSY TOKYO
AMEMBASSY TEL AVIV
AMEMBASSY CAIRO
AMEMBASSY LONDON
AMEMBASSY OTTAWA
AMEMBASSY BONN
AMEMBASSY MOSCOW
AMEMBASSY ROME
USMISSION GENEVA
AMEMBASSY BUENOS AIRES
AMEMBASSY BRASILIA
AMCONSUL RIO DE JANEIRO
AMEMBASSY SEOUL
AMEMBASSY MADRID
AMEMBASSY STOCKHOLM

C O N F I D E N T I A L SECTION 1 OF 2 IAEA VIENNA 6175

DISTO

E.O. 11652: GDS
TAGS: PARM, TECH, IAEA
SUBJECT: IAEA DIRECTOR GENERAL VIEWS THE NPT

1. A GLOOMY DIRECTOR GENERAL EKLUND TALKED TO ME JULY 9 ABOUT THE FUTURE OF THE NPT. EKLUND HAD JUST RETURNED

CONFIDENTIAL

Department of State **TELEGRAM**

CONFIDENTIAL

PAGE 02 IAEA V 06175 01 OF 02 111702Z

FROM A WEEK IN GENEVA WHICH HAD INCLUDED CONSULTATIONS WITH MANY CCD REPS. EKLUND REFERRED TO HIS EARLIER CONVERSATION WITH ME AFTER THE MAY 18 INDIAN TEST. (IAEA VIENNA 5114). HIS PREDICTIONS WERE, HE REGRETTED, COMING TO PASS SOONER THAN HE THOUGHT POSSIBLE. THE NPT WAS BEGINNING TO FALL TO PIECES.

2. EKLUND REVIEWED THE HISTORY OF ATTEMPTS TO ASSURE NUCLEAR NON-PROLIFERATION. HE EXPRESSED GREAT ADMIRATION FOR THE LEADERSHIP AND PERSEVERANCE OF THE USG IN THE LAST TWO DECADES OF EFFORTS TO SOLVE THE PROLIFERATION PROBLEM AND BUILD UP AN EFFECTIVE CONTROL SYSTEM - FIRST; THE EISENHOWER INITIATIVE AND CREATION OF THE IAEA WITH ITS FAR-SIGHTED STATUTE PROVISIONS ON INTERNATIONAL SAFEGUARDS. SECOND, THE GRADUAL CONVERSION OF THE SOVIETS TO SUPPORT OF A NPT STRUCTURE AND OF A DOCTRINAL BELIEF IN THE EFFECTIVENESS OF SAFEGUARDS ADMINISTERED BY THE IAEA. THIRD, THE CREATION AND REFINEMENT OF THE IAEA SAFEGUARDS PROGRAM AND THE ATTEMPTS TO HAVE IT APPLIED UNIVERSALLY IN ALL NON-NUCLEAR WEAPON STATES. THE US HAD AT ALL TIMES BEEN THE LEADER; HAD SET THE OBJECTIVES; PATIENTLY WORKED TOWARD THEM; AND HAD FOUND ITSELF IN THE SPRING OF 1974 IN SIGHT OF THE GOAL.

3. THIS STEADY PROGRESS TOWARDS CONTAINING NUCLEAR PROLIFERATION WAS SUDDENLY SIDETRACKED ON MAY 18 BY THE INDIAN EXPLOSION. EVEN THAT MIGHT NOT HAVE BEEN A FATAL BLOW IF PROPERLY CONTAINED, AND IF OTHER STATES HAD CONTINUED TO RATIFY THE TREATY. IT HAD RAISED SERIOUS DOUBTS ON THE PART OF STATES NOT PARTY TO THE NPT AS TO WHETHER THEY SHOULD PROCEED WITH RATIFICATION, BUT MANY HAD BEEN STILL READY TO DO SO, IF SHOWN THAT THERE WERE GOOD REASONS. BUT THEIR DOUBTS WERE CONFIRMED BY THE PROPOSED NUCLEAR REACTOR SALES TO EGYPT AND ISRAEL, WITHOUT EITHER A CORRESPONDING REQUIREMENT, OR INDICATIONS OF A WILLINGNESS, THAT BOTH STATES ADHERE TO THE NPT. THIS RAISED THE SIMPLE QUESTION "IF ONE CAN HAVE FULL ACCESS TO ATOMIC FUEL, EQUIPMENT AND TECHNOLOGY WITHOUT RATIFYING THE TREATY, WHY UNDER THESE CIRCUMSTANCES SHOULD ANY STATE RATIFY?" THE IMPACT IN JAPAN WAS ALREADY BECOMING OBVIOUS AND THE ANTI-NPT POSITION OF SUCH

Department of State **TELEGRAM**

CONFIDENTIAL

PAGE 03 IAEA V 06175 01 OF 02 111702Z

COUNTRIES AS BRAZIL, ARGENTINA AND ISREAL HAD BEEN VALIDATED, IN THEIR OWN MIDS AT LEAST.

4. EKLUND SAID HE REALIZED THAT THE TIMING OF THE US NUCLEAR OFFERS TO EGYPT AND ISRAEL WAS BASED ON IMPORTANT POLITICAL CONSIDERATIONS WHICH WE DISCUSSED AT LENGTH. HE WAS NOT FAULTING OUR ME POLICY, OR OUR INTENTIONS. HE ALSO REALIZED THAT THE SAFEGUARDS REGIME WHICH WOULD APPLY ON NUCLEAR MATERIALS AND INSTALLATIONS IN THE MIDDLE EAST WOULD BE ADEQUATE FOR ITS PURPOSES OF ASSURING PEACEFUL USES. THIS WAS NOT HIS CONCERN. THE PROBLEM WAS SIMPLY THAT THE EFFECTIVENESS OF THE NON-PROLIFERATION TREATY WOULD ULTIMATELY BE DESTROYED UNLESS ISRAEL AND EGYPT BECAME PARTIES. THE WORLD HAD TO REALIZE THAT JOINING THE NPT WAS PART OF THE COST OF DOING BUSINESS IN THE NUCLEAR AGE. PRIOR TO THE INDIAN EXPLOSION, IT SUFFICED TO HAVE THE KIND OF NON-NPT SAFEGUARDS AGREEMENTS WHICH WERE CONTEMPLATED IN THE ISRAEL-EGYPT REACTOR SALES. THIS ALLOWED THE US TO SATISFY ITSELF THAT ANY NUCLEAR MATERIAL TO BE EXPORTED WOULD NOT BE DIVERTED TO USE IN NUCLEAR EXPLOSIVE DEVICES. NOW, HOWEVER, THIS LIMITED OBJECTIVE DID NOT IN HIS VIEW SUFFICE. IF ISRAEL AND EGYPT COULD MOVE INTO THE NUCLEAR FIELD WITH ASSISTANCE OF US WITHOUT ACCEPTING THE NON-PROLIFERATION COMMITMENTS OF THE TREATY, THE LESSON COULD BE CLEAR TO OTHERS.

5. EKLUND CITED RECENT REPORTS FROM JAPAN. THE IMPORTANT JAPANESE SUPPORTERS OF THE NPT (ABOVE ALL JAPANESE INDUSTRY) HAD UNTIL RECENTLY SUCCESSFULLY USED THE ARGUMENT THAT JAPAN MUST RATIFY IN ORDER TO CONTINUE TO HAVE UNINHIBITED ACCESS TO NUCLEAR FULE; EQUIPMENT AND TECHNOLOGY FROM THE US. THIS ARGUMENT WAS VITIATED BY THE EGYPT AND ISRAEL EXAMPLE. WITH REFERENCE TO OTHER NON-NPT PARTIES, EKLUND CITED SOUTH KOREA AS AN EXAMPLE OF A COUNTRY MOVING RAPIDLY AHEAD IN THE NUCLEAR FIELD WITH PURCHASES FROM THE US, CANADA, AND POSSIBLY OTHERS WITHOUT ANY SERIOUS ATTEMPT BEING MADE TO ASSURE NPT RATIFICATION. WITH REFERENCE TO SPAIN, HE SAID HE HAD JUST TALKED TO SOVIET AMBASSADOR ARKADIEV, CHIDING THE SOVIETS FOR NOT REQUIRING SPANISH NPT RATIFICATION BEFORE PROVIDING URANIUM ENRICHMENTS SERVICES TO SPAIN. ARKADIEV'S

Department of State **TELEGRAM**

CONFIDENTIAL 3435

PAGE 01 IAEA V 06175 02 OF 02 111627Z

43
ACTION ACDA-19

INFO OCT-01 ARA-16 EUR-25 EA-11 NEA-14 IO-14 ISO-00 AF-10

CIAE-00 DODE-00 PM-07 H-03 INR-10 L-03 NASA-04

NSAE-00 NSC-07 OIC-04 SP-03 PA-04 PRS-01 RSC-01

SCI-06 SS-20 USIA-15 SAJ-01 SAM-01 ORC-01 /201 W
087625

R 111437Z JUL 74
FM USMISSION IAEA VIENNA
TO SECSTATE WASHDC 4717
INFO AEC GERMANTOWN
AMEMBASSY TOKYO
AMEMBASSY TEL AVIV
AMEMBASSY CAIRO
AMEMBASSY LONDON
AMEMBASSY OTTAWA
AMEMBASSY BONN
AMEMBASSY MOSCOW
AMEMBASSY ROME
USMISSION GENEVA
AMEMBASSY BUENOS AIRES
AMEMBASSY BRASILIA 70
AMCONSUL RIO DE JANEIRO
AMEMBASSY SEOUL
AMEMBASSY MADRID
AMEMBASSY STOCKHOLM

C O N F I D E N T I A L SECTION 2 OF 2 IAEA VIENNA 6175

RATHER LAME ANSWER WAS THAT THE USSR WAS OF COURSE REQUIRING SAFEGUARDS AND IN ANY CASE, IF THE US COULD CONTINUE TO SUPPLY ITALY WITH ENRICHED FUEL DESPITE ITALIAN FAILURE TO RATIFY THE TREATY, WHAT COULD THE SOVIETS DO IN THE CASE OF SPAIN?

6. EKLUND SAID MOST OF THE WORLD (INCLUDING THE SOVIETS) WERE WATCHING WHAT THE US REACTION TO THE NEW SITUATION WOULD BE. HE REALIZED THAT HIS SUGGESTIONS WERE SIMPLER TO

Department of State **TELEGRAM**

CONFIDENTIAL

PAGE 02 IAEA V 06175 02 OF 02 111627Z

MAKE THAN TO EXECUTE. THE US OF COURSE COULD NOT ACT ALONE AND WOULD HAVE TO HAVE THE SUPPORT OF OTHER NUCLEAR EXPORTING STATES, BUT ONLY THE US COULD EXERCISE THE LEADERSHIP WHICH WAS NOW REQUIRED. HE THOUGHT THAT THE REAL DAMAGE TO THE NPT WOULD BE FIRST REVEALED IN MAY 1975 AT THE NPT REVIEW CONFERENCE. THERE WOULD BE SOME DEBATE AT THE PREPCOM MEETING IN AUGUST OF THIS YEAR BUT IT WOULD BE RELATIVELY DESULTORY AND MOST STATES WOULD AWAIT DEVELOPMENTS AND HOLD THEIR FIRE TO SEE WHAT HAPPENED IN THE NEXT SIX MONTHS. HE ADDED THAT HIS SOUNDINGS DID NOT SUGGEST THAT THE US-USSR THRESHOLD TEXT BAN TREATY WOULD IMPROVE THE SITUATION APPRECIABLY. HE PERSONALLY ENDORSED IT AS A STEP FORWARD, BUT NOT ONE WHICH COULD PROVIDE ANY LEVERAGE IN THE NON-PROLIFERATION SENSE. IN FACT, IT WOULD BE MORE LIKELY TO HAVE A COUNTER-PRODUCTIVE IMPACT, IN NO WAY COUNTERING THE CRITICISM OF THE NPT ON "DISCRIMINATION" GROUNDS. PORTER