

THE SECRETARY OF STATE
WASHINGTON

February 18, 1980

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MEMORANDUM FOR: THE PRESIDENT

FROM: Cyrus Vance /5/

SUBJECT: Nonproliferation Strategy for 1980 and Beyond

Attached is a memorandum on this subject from Gerry Smith which has the concurrence of State, Energy and ACDA.

I believe you should be aware of, and recommend you approve, the general strategy he is suggesting. The strategy represents largely clarifications of current policy and does not require changes in the law. We will ask for authority to make specific moves as required.

As the International Nuclear Fuel Cycle Evaluation (INFCE) draws to a close, it is important that we remove unnecessary causes of division with our Allies which do not help nonproliferation, and that we begin to build a better international nonproliferation regime. An indispensable element is that the U.S. be considered a reliable and predictable supplier.

If you approve the strategy, we will work closely with DOE and ACDA in implementing it.

Attachment:

As Stated

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DEPARTMENT OF STATE
AMBASSADOR AT LARGE
WASHINGTON

February 16, 1980

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MEMORANDUM FOR: THE PRESIDENT

FROM: Ambassador Gerard Smith
Special Representative for Nonproliferation

SUBJECT: Nonproliferation Strategy for 1980
and Beyond

The purpose of this memorandum is to seek approval of a general strategy to improve our nonproliferation policy in 1980. We will ask for authority to make specific moves as required. The strategy in large part makes elements of our current policy more detailed and specific. The most critical issues involve (i) European and Japanese reprocessing of U.S. origin material and use of the resulting plutonium and (ii) improvements to the nonproliferation regime. Nothing proposed for 1980 would require any change in the law.

I

At the start of your administration, it was important promptly to increase awareness of the need to slow the spread of sensitive facilities which were making control of nuclear proliferation more difficult. Since 1977, the International Nuclear Fuel Cycle Evaluation (INFCE), which you initiated, and bilateral discussions have provided us and others with better perceptions of both the problems and possible solutions.

Several things have become clear:

1. We are seen to be an unreliable supplier and ambivalent about nuclear power. Alternate suppliers are emerging and our influence over nuclear trade and programs is becoming increasingly limited. Our influence over reprocessing and plutonium use is particularly limited in that we lack consent rights regarding EURATOM countries and cannot politically treat Japan less favorably than Europe.

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2. While for domestic reasons many nuclear programs have been slowed in recent years and the proliferation dangers inherent in plutonium based fuel cycles are now better perceived (in large part as a result of U.S. efforts), breeder and advanced reactor options... are still perceived to be of great importance by major countries in Europe and Japan. These programs will continue even if we do not agree; their importance is affirmed by INFCE. To the extent U.S. policy attempts to interfere with these programs, it is seen to threaten these countries' energy security.
3. The NPT regime is the foundation of nonproliferation policy but is increasingly attacked by countries who see nuclear suppliers as not keeping their part of the bargain--"fullest possible exchange...for the peaceful uses of nuclear energy." U.S. policy is singled out as particularly damaging.
4. We need to develop a joint strategy with the major suppliers (our allies with the most advanced nuclear programs--UK, France, FRG, Japan) to (a) improve the nonproliferation regime and (b) agree on criteria for plutonium uses and related reprocessing.
5. We need also to make NPT or equivalent (Tlatelolco) obligations more attractive, provide greater supply assurances to countries accepting these obligations, and isolate to a greater extent the problem countries.

II

We face major decisions in 1980 that were deferred for the period of INFCE. These involve requests for consent to reprocessing of U.S. origin fuel in France, the UK and Japan; the conditions of our consent to the use of the resulting plutonium; and the EURATOM renegotiation aimed at giving us such consent rights where we

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will have to specify how we would exercise them. We also face decisions on implementation of the statutory requirement that countries with which we cooperate have safeguards on all their nuclear activities (full-scope safeguards). And, we face an NPT Review Conference in August, where restraints on international nuclear cooperation will be a major issue.

Following INFCE's concluding Plenary February 25-27, we should demonstrate that its analysis is being taken into account in U.S. policy and that we are willing to become a more reliable supplier. This is essential if we are to limit the spread of sensitive facilities and stop the current move towards multilateral negotiations of criteria for nuclear trade which could result in U.S. isolation, North-South confrontation and setbacks for our nonproliferation policy.

Beyond 1980, we should consider amendment of the NNPA to (i) eliminate its retroactive provisions, and (ii) if not already accomplished by reorganization plan, relieve the NRC of its role in export control (except possibly with respect to safety). These issues need not, however, now be resolved, and nothing proposed in this memorandum limits your freedom of action here.

III

Any strategy to reduce proliferation risks associated with the fuel cycle must begin with the other major suppliers. Without their support, U.S. nonproliferation policy can have only limited effect.

These countries are allies, have accepted NPT or equivalent obligations, and have large electric grids and advanced nuclear programs. Their investigation or pursuit of breeders and other advanced fuel cycle options is understandable.

The proposed strategy involves private negotiations with these countries aimed at achieving a bargain that helps meet their wish for more predictable use of

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U.S. origin spent fuel, our wish to avoid precedents which could lead to premature spread of plutonium, and our mutual interest in an improved nonproliferation regime. In addition, the strategy seeks to reduce apparent discrimination by providing (i) for new benefits to those accepting NPT or equivalent obligations and (ii) for the possibility of additional countries joining the preferred group when their programs and nonproliferation assurances warrant.

The highlights of the strategy are:

1. To seek supplier and other support for (a) making NPT or equivalent full-scope safeguards (FSS) a condition of new supply commitments; (b) relating reprocessing and plutonium use to well defined, reasonably safe and limited, programs (breeders and advanced reactors) and deferring commitments to commercial thermal recycle; (c) an effective international plutonium storage (IPS) regime; and (d) enhanced cooperation in dealing with countries posing significant proliferation risks.
2. To provide U.S. agreement for a period of years for the advanced countries (in EURATOM and Japan) to reprocess U.S. origin spent fuel and use the resulting plutonium in well defined breeder and advanced reactor programs.
3. To provide new benefits, including longer term and possibly up to "life-of-reactor" fuel assurance (LEU), to countries which accept NPT or equivalent FSS and do not otherwise demonstrably pose a significant proliferation risk.

IV.

Much of this proposed 1980 strategy is consistent with present policy; none of it requires changes in law. The principal differences involve (i) longer term

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*See Tab A for details.

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and possibly up to "life-of-reactor" fuel assurance, (ii) agreement for a period of years for the advanced countries to reprocess U.S. origin spent fuel and use the resulting plutonium for breeder and advanced reactor RD&D, and (iii) support for an effective IPS. (These differences and their rationale are discussed in Tabs C, G and H.)

V

I propose we:

1. Conduct negotiations along these lines in 1980.
2. Seek the support of other suppliers for increased fuel supply assurance and appropriate technical assistance and cooperation for NPT or equivalent countries, particularly developing countries.

Approve _____ Disapprove _____

Attachments:

- Tab A - Summary of Strategy
- Tab B - Country Distinction Analysis
- Tab C - Major Differences Between Proposed Strategy and Current Policy
- Tab D - Foreign Reactions to U.S. Policy and Law
- Tab E - Summary of INFCE Results
- Tab F - Views on Major Problems and Opportunities for the Post-INFCE Period
- Tab G - Issues Paper on Approval of Reprocessing and Plutonium Use
- Tab H - Issues Paper on International Plutonium Storage

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TAB A

Post INFCE Strategy for 1980

Our general strategy should link nonproliferation assurance and improvement of the international nonproliferation regime to improved supply assurance. It should remove unnecessary irritants with Allies and make NPT or equivalent undertakings more attractive. It should provide preference for those who accept NPT or equivalent FSS with particular consideration for countries who have made progress in renegotiating their agreements with us and thus accept additional NNPA requirements. We should also improve the administrative process for approving exports and retransfers.

- A. The US should work with other key nuclear countries, in particular the other major nuclear suppliers, to develop an improved nonproliferation regime. Emphasis would be placed on:
1. supplier consensus on requiring NPT or equivalent full scope safeguards as a condition for major new supply commitments;
 2. an effective IAEA International Plutonium Storage (IPS) regime to provide for international oversight of plutonium from separation at a reprocessing plant until irradiation in a reactor, as well as commitments of excess separated civil plutonium (including ours) to such a regime;
 3. deferral of commitments to thermal recycle on a commercial basis; and
 4. enhanced supplier cooperation in dealing with countries posing significant proliferation risks...

We would also seek (5) continued adherence to the Supplier Guidelines and expanded commitments not to offer to export for national use sensitive technologies (especially enrichment and reprocessing); (6) support where appropriate, for multinational auspices for sensitive facilities; (7) commitments to design and dedicate future enrichment capacity to produce LEU only; and (8) increased political and financial support in the IAEA for improved safeguards.

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B. In exchange for concrete movement by other countries towards these elements of an improved nonproliferation regime noted above, the US should improve its supply assurances:

1. For those countries which are indispensable to improving the nonproliferation regime (i.e., the major Suppliers who are also our Allies), have committed themselves to NPT or equivalent nonproliferation obligations and do not otherwise demonstrably pose a significant proliferation risk, and have large electric grids and advanced nuclear programs -- (a) provide batch or generic authorizations for a period of years for reprocessing of US supplied nuclear materials and use of the derived plutonium for breeder and advanced reactor RD&D; and (b) increase cooperation on advanced nuclear technologies.

The authorizations would provide both for transfers for reprocessing or in limited cases (such as Japan) reprocessing in-country under appropriate conditions. In the case of EURATOM where we lack a veto on reprocessing and plutonium use, our effort to get a veto would be linked to pre-agreement on its exercise along the above lines. We would also seek acknowledgment of a linkage between the timing of new reprocessing capacity and breeder and advanced reactor programs, taking into account plutonium availability from other sources.

2. For all countries with NPT or equivalent commitments that do not otherwise demonstrably pose a proliferation risk -- (a) continue present policy of considering on a case-by-case basis spent fuel transfers to advanced countries for reprocessing (but not plutonium return) where there is spent fuel congestion; (b) expand this policy to consider on a case-by-case basis similar (or possibly even generic) approvals for such transfers where this furthers US nonproliferation objectives; and (c) approve on a batch or generic basis such transfers where a contract for such reprocessing predates the April 1977 Nonproliferation Policy Statement.

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3. For all countries with NPT or equivalent commitments that do not otherwise demonstrably pose a proliferation risk -- expand nuclear fuel licensing to longer term and possibly up to "life-of-reactor" fuel assurances.

We should also simplify export procedures regarding small quantities of special nuclear material and reactor components; provide enhanced nonsensitive technical cooperation and assistance in dealing with the problems of nuclear power; encourage, if necessary, backup fuel supply arrangements (e.g., cross guarantees, linked stockpiles, Fuel Bank); and encourage national and international interim spent fuel storage as an alternative to reprocessing.

- C. For countries having (as required by the NNPA) full scope safeguards at the time of export, but not a commitment to place future nuclear activities under safeguards (NPT or equivalent FSS) and that do not otherwise demonstrably pose a proliferation risk -- pending supplier consensus on making NPT or equivalent FSS a condition of new commitments, (1) continue present policy of considering on a case-by-case basis supply of nonsensitive material, equipment and facilities; and (2) encourage, where appropriate, multinational alternatives to national sensitive facilities.
- D. For countries without FSS of any kind or which otherwise demonstrably pose a proliferation risk, we should:
 1. refuse new commitments;
 2. continue to urge other suppliers not to export sensitive nuclear material, equipment and facilities;
 3. where these measures fail, use available leverage to get the country (i) to accept IAEA safeguards on any sensitive facility or material, (ii) to foreswear development, manufacture and testing of nuclear explosives and (iii) refrain from transfer of the technology; and

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4. seek advance consensus on sanctions for a nuclear explosion by a country not now a nuclear weapon state.

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TAB B

Country Distinction Analysis

Energy needs and proliferation risks associated with the nuclear fuel cycle are different in different countries.

For purposes of analysis we need to deal with three categories of countries from a nonproliferation point of view: (1) those who accept NPT or equivalent nonproliferation obligations, including a commitment to safeguards on all existing and future peaceful nuclear activities (NPT or equivalent FSS) and do not otherwise demonstrably pose a proliferation risk (low risk countries); (2) those who, as required by the NNPA, accept safeguards on all peaceful nuclear activities at the time of export (de facto FSS) and do not otherwise demonstrably pose a proliferation risk (medium risk countries); and (3) those who do not accept de facto FSS or otherwise demonstrably pose a proliferation risk (high risk countries).

1. Among low risk countries there are three sub-categories: (a) countries with large electric grids and advanced nuclear power programs; (b) countries with reactors in place and realistic plans for a large number of additional reactors; and (c) countries with smaller nuclear programs.

We propose to link increased supply assurance to economic and energy program needs in these countries. All countries with nuclear power programs need assured access to uranium, enrichment and spent fuel storage services, reactors and components, and cooperation on dealing with the problems of nuclear power (e.g., reactor safety, spent fuel storage, waste disposal). Further, developing countries need technical assistance regarding such problems and general development of nuclear energy. In addition, more advanced nuclear countries may have a legitimate need to carry out research on breeders or advanced reactors; we should encourage their collaboration with the most advanced countries on these technologies rather than purely indigenous experimentation. Finally, some of the countries with smaller nuclear programs may require some additional certainty in dealing with potential future spent fuel problems.

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Although views differ as to timing, for advanced countries, development of such nuclear technologies as breeders and advanced reactors is understandable. They have a resulting need for access to reprocessing and plutonium. These countries are committed to nonproliferation, and nothing we can do regarding their fuel cycles will have much effect on their weapons potential. As suppliers, their support is essential to restrain the spread of sensitive nuclear materials and technology to other countries and deal with would-be proliferators.

2. Medium risk countries should be treated on a case-by-case basis. Although the NNPA and our current renegotiation of U.S. cooperation agreements effort only require de facto FSS for continued cooperation, we should seek supplier consensus on making new commitments (i.e., contracts under existing agreements) contingent on NPT or equivalent FSS. Pending development of such consensus, we should continue present policy of considering new commitments on a case-by-case basis.

While most countries with whom we have made progress in renegotiating our cooperation agreements have accepted NPT or equivalent FSS, one or two have not. It is possible that these countries would consider supplier agreement on making NPT or equivalent FSS a condition of new commitments another example of suppliers' "upping the ante" retroactively. We believe the advantages of our proposed approach outweigh the disadvantages in that (i) NPT or equivalent safeguards is a much more substantial nonproliferation commitment, (ii) the countries affected will have no alternative if all suppliers agree, and (iii) we should know whether such agreement is possible before too much further progress is made on renegotiating on a de facto FSS basis. It should be noted that the FSS approach suggested in this paper has been an element of U.S. policy since 1975.

3. High risk countries should not receive increased supply assurance. We should, nonetheless, continue case-by-case consideration of individual exports to countries in this category with NPT or de facto FSS where this is in our overall interest, although the presumption would be against cooperation. In accordance with the NNPA, we cannot

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continue cooperation with countries not accepting at least de facto FSS, although we might consider in 1981 elimination of retroactive application of this requirement to existing commitments.

Finally, while we may get supplier support for nuclear export restraint regarding these countries, we have usually found little or no support for sanctions in cases of largely indigenous development of sensitive facilities. While it may be very difficult to do so, we should nonetheless in these cases use relevant leverage to get such facilities under safeguards and obtain a commitment not to manufacture, develop or test a nuclear explosive device.

These categories are not static. Proliferation risks and energy requirements change. So do countries' political and security interests. Our policy should provide for evolution, but begin with an accommodation of the priorities of those who pose minimal proliferation risk, consistent with their state of nuclear development. This accommodation should take account of both real needs and precedential impacts. It should aim at getting the support of these countries in containing proliferation generally.

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TAB C

Major Differences Between Proposed
Strategy and Current Policy

Much of this proposed 1980 strategy is consistent with present policy; none of it requires changes in law. The principal differences involve (1) longer term and possibly up to "life-of-reactor" fuel assurances; (2) agreement for a period of years for the advanced countries to reprocess U.S. origin spent fuel and use the resulting plutonium for breeder and advanced reactor RD&D; and (3) support for an effective international plutonium storage (IPS) regime.

1. Longer term and possibly up to "life-of-reactor" licensing of low enriched fuel for power reactors in NPT or equivalent countries. From a utility point of view, fuel supply assurance is vital to timely reactor investment. Recently adopted policy authorizes batch licensing up to five annual reloads for these countries. We have just started to implement this policy which should have some impact on improving perceptions of U.S. reliability as a supplier. While we should capitalize on this development, five years may well not be enough to satisfy some countries. Further, while unpredictability associated with our controls on spent fuel is probably the major cause of our being perceived as an unreliable supplier, many customers view case-by-case licensing and associated delays as burdensome. There is also a need to enhance the benefits accruing to all those who undertake NPT or equivalent obligations.

Under long term licensing, we would retain the right to prohibit an export in cases of clear proliferation risk; but the burden would be on the USG to stop the export rather than on the customer to obtain it. (It should be recognized this will decrease our ability to prevent stockpiling of LEU in the countries affected, and that revocation of a license would be an extraordinary remedy requiring public justification.)

Before offering such assurances beyond the five reloads already being implemented, we would need to make sure that the NRC would be prepared to

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implement such a policy without imposing additional conditions and that there would be no strong Congressional objections. We do not anticipate much Congressional opposition and hope to be able to persuade the NRC.

2. Agreement for a period of years for NPT or equivalent advanced countries to reprocess U.S. origin spent fuel and use the resulting plutonium in well defined and advanced reactor RD&D. Current policy authorizes case-by-case approvals during INFCE of reprocessing (not plutonium use) where (i) there is spent fuel congestion or (ii) the reprocessing contracts predate your 1977 Nonproliferation Policy Statement, and the country involved is exploring more proliferation resistant spent fuel disposition and approvals further U.S. nonproliferation objectives.

Since we lack prior consent rights over reprocessing within EURATOM, current policy is now applicable in practice only to Japan, Sweden, Switzerland and Spain. While the law requires us to seek consent rights regarding EURATOM, our European Allies have stated that they will not agree to this on the present case-by-case uncertain basis which is the current manifestation of U.S. policy.

The proposed change would be responsive to the needs of countries with large, advanced nuclear power programs. Your 1977 Policy Statement specifically stated we were not "trying to impose our will" on nations like Japan, France, Britain and Germany which already have reprocessing plants and have special energy needs. Further, the INFCE analysis acknowledges the potential of breeders and advanced reactors in countries like these; the NNPA stipulates that its provisions on reprocessing not prejudice open and objective consideration of INFCE results. Finally, EURATOM will not accord us a prior consent right that does not recognize this, and relations with Japan would be severely damaged if we treated it differently than EURATOM.

U.S. movement here should be used to obtain Allied support for an improved nonproliferation regime. These countries can be distinguished on economic

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grounds from others, although we should not underestimate the difficulty of convincing other countries that the policy does not discriminate against them. The recommended approach is also consistent with Illustrative Elements which we were authorized to discuss informally with concerned Congressional leaders and key foreign countries; initial Congressional reactions have been cautious, but not unfavorable, although close questioning can be expected from Bingham, Zablocki and Glenn, particularly regarding expected non-proliferation benefits and the terms of our proposed approvals of plutonium returns. We should be able to justify such approvals as meeting NNPA requirements but can anticipate Congressional hearings on this.

3. Support for an effective international plutonium system (IPS). The NNPA urges you to seek international approaches to the storage of special nuclear material, but you had previously indicated a wish to discourage this effort, lest it give impetus to premature plutonium separation and use. Virtually all countries with important nuclear programs want early agreement on IPS; the exceptions are Argentina and India who fear IPS would prove too restrictive. Given this general sentiment and UK, FRG, Dutch and Brazilian commitments to establish an IPS before the first shipments of fuel from Europe to Brazil--there will be an IPS, with or without us.

While an effective IPS will not solve nonproliferation problems associated with plutonium, it could enhance current and future arrangements; when coupled with long term bilateral agreements with the major countries on plutonium separation and use, it could make the exercise of national controls less onerous. A weak IPS, which will be created unless we actively participate in its formulation, would constitute an undesirable precedent, and the U.S. could find itself isolated by refusing to join. This would make U.S. exercise of national controls even more onerous politically.

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Foreign Reactions to U.S. Policy and Law

U.S. actions have led to heightened awareness of the risk of nuclear proliferation, but most countries still give more weight to energy needs than to nonproliferation. They believe we overemphasize the risks of misuse of civil fuel cycles as opposed to those from dedicated explosives programs, although there is more acknowledgment of the risk of fuel cycle misuse than was the case a few years ago.

While other advanced industrial nations appear to be willing to continue to condition their exports on the Nuclear Suppliers Guidelines, most of them believe that there should be no constraints on commerce in non-sensitive facilities and materials as long as nations accept international safeguards. There is very little support for the U.S. preference that trade in non-sensitive equipment and materials should be conditioned on nations foregoing indigenous development of sensitive facilities. Most nations believe U.S. policy with respect to these matters is contrary to Article IV of the NPT.

There is virtually universal disagreement with the U.S. Nuclear Nonproliferation Act of 1978, particularly its retroactive provisions. Many nations feel that our imposition of new conditions for nuclear trade has contributed to uncertainty about access to uranium, enrichment services and technology, thereby stimulating other nations to move toward development of national fuel cycle facilities. They believe our policy will be counterproductive. The short term effects are also seen to be adverse in that the law has made planning difficult for the advanced industrial countries (about which there is little or no proliferation concern) and has been resented by them, while having little, if any, effect on countries for which there is concern.

Although many nations are apprehensive about future fuel supply, the U.S.-proposed fuel bank is not seen as responsive to those concerns. There is also little impetus for internationalization or multinationalization of enrichment fuel fabrication, reprocessing, spent fuel storage or waste disposal, although certain suppliers indicate willingness to consider, on a case-by-case basis, some multinational element for enrichment and reprocessing. We are exploring with other interested countries multinational alternatives to national sensitive facilities.

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INFCE

The analytical work for INFCE is complete and the final summary report is under review. We will be reporting on the results in more detail separately.

1. INFCE succeeded, at least for its duration, in easing tensions over nuclear policies. It expressed international agreement on the twin goals of non-proliferation and use of nuclear power.

2. Although proliferation risks are recognized, no single or simple solutions are identified. The importance of IAEA safeguards was emphasized. With regard to technical options, changes in reprocessing and the collocation of reprocessing and fuel fabrication facilities can reduce risks of theft and proliferation risks somewhat, but there is little prospect of eliminating or greatly reducing through technical means proliferation risks in reprocessing and mixed oxide fuel fabrication. Thorium use was seen as having little net advantage.

3. There is general acceptance of the U.S. view that at present uranium and enrichment prices, there is little, if any, economic advantage in the recycling of plutonium in thermal reactors. However, some states argue that thermal recycle may be important for other reasons: because of insecurity about access to uranium, to avoid the accumulation of plutonium contained in spent fuel, and because reprocessing may be politically desirable, even though technically unnecessary as a precondition to waste disposal.

4. It is generally agreed that limiting reprocessing and enrichment to a few large facilities has both economic and nonproliferation advantages, and that plant design should take account of safeguardability and perhaps include a multi-national dimension.

5. There is a consensus that breeder and advanced reactor options should be kept open, but that breeder programs should not be attractive to countries with small electrical grids and limited experience with nuclear power. There is a range of judgment about breeder economics and timing of commercialization.

6. There is general agreement that reduced use of highly enriched uranium in research programs is a desirable goal and feasible in most cases, but such changes should not result in an economic burden or decreased technical capabilities to meet research objectives.

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Those opposed to nuclear power may criticize the absence of in-depth treatment of safety and environmental problems. INFCE's terms of reference focused on the relationships between nuclear energy and proliferation.

There will be criticism in the United States (and in other countries) that their views did not prevail. Our views are reflected in the report; so are those of other countries, and often they differ. Where there are differences, more often than not, the United States' views are shared by only a small minority.

On a few points we will want to register some comment or qualification on the INFCE report, probably at the final INFCE plenary. For example, we will point out that the projections for growth of nuclear power are outdated and much too high and that there is far less need for early commercialization of the breeder than some parts of the report suggest.

I believe that INFCE has been useful; this is a widely shared view. It facilitated understanding of national views and consensus on certain important points; and it provides a great deal of material of use to countries without well developed nuclear power programs.

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TAB F

Post-INFCE Problems and Opportunities

Because of concern about predictability and security of supply of uranium, enrichment services, and equipment, a number of influential countries have indicated interest in moving toward more widely agreed international guidelines for nuclear trade. Many, including the Director General of the IAEA, see this as necessary to head off a North-South confrontation and damage to the NPT. This could be troublesome since most nations will want to reduce the constraints on nuclear trade that we deem necessary for nonproliferation purposes. Key supplier nations share our concerns, and believe that for the near-term trade must be based on bilateral agreements.

Resistance by us and others to this effort and the perception that we are not complying with Article IV of the NPT mean that we will face heavy going at the NPT Review Conference this summer. Resentment concerning nuclear trade policies, and failure to conclude a comprehensive test ban treaty, pose major risks to the NPT regime.

There is substantial interest abroad in an International Plutonium Storage (IPS) System. This represents a problem and an opportunity. Earlier, we tried to discourage such a system because of our concern that it might legitimize reprocessing. It now seems clear that reprocessing will continue in a few countries, and that some kind of IPS regime will be established. There is no agreement about (a) its coverage, i.e., whether it should apply only to storage at reprocessing, and possibly fuel fabrication plants, or involve international oversight from the time plutonium is separated at a reprocessing plant until it is irradiated in a reactor; (b) criteria that should apply to release of plutonium; and (c) the mechanism to administer the regime. There is also the question of nuclear weapons states subjecting their excess civil plutonium to the regime. (See Issues Paper on IPS at Tab H).

While the great majority of nations agree on the desirability of safeguards on reactors and sensitive parts of the nuclear power fuel cycle, we have been unable to get complete acceptance that assured nuclear supply should be conditioned on acceptance of full scope safeguards (i.e., all peaceful nuclear activities). France has been the major obstacle. But a change here now appears possible. Had such a safeguards requirement been in effect in recent years

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there would now be no problem with Argentina and suppliers' hands would have been greatly strengthened in dealing with some of the other problem nations. Perhaps assent to full scope safeguards could be announced at the NPT Review Conference; it would be a positive nonproliferation development at a Conference that will be highly critical of suppliers and of the nuclear weapons states in particular. On the other hand, to achieve this and minimize criticism, it would be helpful to have developed a supply package for those who accept NPT or similar nonproliferation obligations and do not otherwise demonstrably pose a proliferation risk.

We should not try now to reach agreements that would need a broad consensus on a new international nuclear regime. Our differences with others remain great; changes in our law or clarifications that would permit more flexibility may eventually be required. It is unrealistic to expect to make those changes and secure early international consensus in an election year, in the United States and in the FRG and Canada. For at least the coming year we should focus on what can be accomplished within the framework of the NNPA, recognizing that this may inhibit to some extent our ability to pursue our nonproliferation and foreign policy objectives.

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TAB G

Issues Paper on Approvals of Reprocessing
and Plutonium Use

A. Background

The U.S. has a right of prior consent over reprocessing of U.S. supplied fuel and use of the resulting plutonium in the case of all countries where we have cooperation agreements, except EURATOM. We do, however, have controls over the flow of US origin spent fuel to EURATOM from other countries and in-country reprocessing. Regarding those countries which plan to reprocess soon (either in-country or by transfers to EURATOM countries), this means we have rights only with respect to India, Japan, Sweden, Switzerland and Spain. With regard to EURATOM, the NNPA requires we obtain such rights by March 10, 1980, subject to annual extension of the deadline. Since EURATOM will not accord us an approval right without considerable confidence in how it would be applied and it is not in our interest to terminate nuclear cooperation, you have extended the deadline for another year.

Our policy, pending completion of INFCE, has been to exercise our right of prior consent with regard to transfer of US origin spent fuel for reprocessing in another country only on a case-by-case basis where there is either (i) spent fuel congestion or (ii) a reprocessing contract signed prior to the April 1977 Nonproliferation Policy Statement and where it serves US nonproliferation interests. We have not in fact denied any requests. The only instance in which we have approved reprocessing "in-country" has been at Tokai Mura. That agreement is also of an interim nature and is being extended until 1981 as an interim measure. The countries concerned (Japan and in Europe) do not view our current policy and the extension of the EURATOM deadline as satisfactory; it causes them uncertainty in their spent fuel disposition plans and in some cases in the operation of their reactors. INFCE reflects this concern and specifically states that, if circumstances have not changed, prior consent rights should be exercised in a predictable manner that conforms to understandings at the time the right of prior consent was established.

The U.S. is constrained by the NNPA (Section 131 (b)) not to authorize reprocessing, or retransfers for reprocessing, unless the reprocessing "will not result in a significant increase in the risk of proliferation". In

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making this judgment, the U.S. must give "foremost consideration" to "timely warning to the United States of any diversion" where the reprocessing takes place in a non-nuclear weapon state. On the other hand, Section 131 (d) stipulates that nothing in Section 131 is intended to prohibit permanently or unconditionally reprocessing of US origin spent fuel; preclude full US participation in INFCE; limit US consideration in INFCE of any fuel cycle; or prejudice open and objective consideration of INFCE results.

As noted in Tab E, INFCE has concluded that breeders and other advanced reactors could prove attractive to countries with large electric grids and advanced nuclear programs. A number of countries (including the US) have substantial breeder and other RD&D programs involving reprocessing and plutonium use. With the major countries in Europe and Japan, US attempts to stop these programs would either be unsuccessful (EURATOM countries where we lack consent rights) or severely damage relations (Japan).

There could be Congressional and public opposition to interpretation of NNPA criteria in a more forthcoming and generic way. On the other hand, we have discussed with concerned Congressional leaders (Glenn, Bingham) and the Europeans and Japan "Illustrative Elements" (cleared by the relevant agencies and the NSC staff) which fore-shadow recognition of breeder and advanced reactor RD&D and deferral for the time being of commercial thermal recycle. This approach was greeted cautiously, but with favor. There is ample legislative history to permit an interpretation of the NNPA which would permit greater predictability in the exercise of the U.S. prior consent right, although we can anticipate Congressional hearings on this point.

B. Issues

1. Should we at minimum continue post INFCE the present policy of approving reprocessing (not plutonium use) on a case-by-case basis where there is (i) spent fuel congestion or (ii) a reprocessing contract predating the April 1977 Nonproliferation Policy Statement?

The present policy is designed to deal with (i) physical need and (ii) contractual commitments entered into in good faith prior to the change in

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U.S. policy, where there is no significant proliferation risk. It is essential to at least continue such approvals if we are not to cause serious tension with our Allies and possible shut downs of reactors or financial loss to utilities because of a policy imposed retroactively. However, this approval policy does not satisfy the needs of countries with advanced nuclear programs for greater certainty, and thus could not serve as an acceptable basis for fashioning a post INFCE regime.

2. Should we, in the case of NPT or equivalent countries, go beyond present policy (i) to provide generic approvals of reprocessing (but not plutonium use) in the advanced countries for contracts predating the April 1977 Nonproliferation Policy Statement and (ii) provide for case-by-case consideration of similar (or possibly even generic) approvals for reprocessing in the advanced countries under post April 1977 contracts where this serves our nonproliferation interests?

One of the principal complaints about current US policy and law involves its retroactive provisions, in particular those that would impose financial penalties. The INFCE conclusion noted above was formulated by the Japanese who particularly resent seeking case-by-case US determinations of whether we will permit them to abide by reprocessing contracts entered into in good faith on the basis of previous understandings with the US. Since all of the prior contracts involve NPT or equivalent advanced countries (we are hopeful Spain will assume such nonproliferation obligations) and reprocessing in the UK or France, we should remove this thorn in our relations.

We should also be prepared to permit case-by-case consideration of case-by-case (or possibly even generic) approval of retransfers for reprocessing in the advanced countries under post April 1977 contracts where this serves our nonproliferation interests. There may be cases where we will wish to encourage shipment of spent fuel out of the country (e.g., from India or Korea). We may also

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wish in the case of countries with reactors in place and realistic plans for a large number of additional reactors to permit participation in breeder and advanced reactor RD&D in the advanced countries as an alternative to indigenous programs.

3. Should we go beyond our present policy to provide for NPT or equivalent countries with large electric grids and advanced nuclear programs batch or generic authorizations (for a period of years) for reprocessing and plutonium use for breeder RD&D, subject to interruption only where there is a material breach of agreement?

While this change in our present policy would recognize the legitimacy of certain countries proceeding now with breeder and advanced reactor RD&D and reprocessing (including possible new reprocessing facilities) for this purpose, the shift would be consistent with INFCE and recognize a reality that in most of the concerned countries we cannot and should not try to prevent.

The U.S. decision to mothball Barnwell is distinguishable; we already had ample plutonium stocks for what in dollar terms is still a very large breeder R&D program. And, Barnwell was predicated in large part on commercial thermal recycle which we now hope to discourage.

All of the countries involved have, or are expected to have, NPT or equivalent obligations, and the INFCE analysis supports a breeder option as justifiable for countries with large electric grids and advanced nuclear programs. These countries can also be distinguished from others about which there may be greater concern on either nonproliferation or economic grounds. Most of the countries with an interest in advanced nuclear technologies which would not be included have not accepted NPT or equivalent obligations.

Approval of plutonium use, as well as reprocessing, is justified in these cases as consistent with our policy of linking reprocessing to specified justifiable needs (breeders and advanced reactors in countries where pursuing this option is not

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illegitimate). It is also consistent with your 1977 Nonproliferation Policy Statement in which you indicated you did not wish to interfere with the nuclear programs of countries like the UK, France, FRG, and Japan that have special energy needs. Given the nature and nonproliferation commitments of the countries involved, we should be able to justify such approval as meeting NNPA requirements.

4. How should a new approach be structured and negotiated?

It is important that the approach be based on recognizable economic and nonproliferation considerations and minimize apparent discrimination. There must be real possibilities for additional NPT or equivalent countries that do not otherwise pose a significant proliferation risk, particularly those that have accepted NNPA conditions as a part of revised cooperation agreements, to participate in advanced nuclear technologies--perhaps through multilateral arrangements,--as their economies and nuclear programs warrant. International agreement on formal economic criteria to justify plutonium use will not be possible. But the actions of suppliers should be consistent with the general formulation expressed above.

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Current policy discourages new reprocessing capacity in excess of specified needs. We favor limiting the number of such plants to a few large ones located in countries with major programs. In addition to existing and planned increased capacity in France and the U.K., Japan has enacted legislation to proceed with a commercial plant and Belgium plans to reactivate the relatively small EUROCHEMIC plant at Mol. The U.K. and French plants and planned new capacity do not directly pose an increased proliferation risk as they are located in nuclear weapon states, although we have concerns regarding the terms of their return of plutonium. The EUROCHEMIC plant was the forerunner of the British and French plants and can be grandfathered under the law. Given the lack of prior consent with respect to EURATOM, we

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could not halt these plants in any event.

While we could attempt to obstruct reprocessing in Japan, such action would cause major damage to U.S.-Japanese relations and only indirectly contribute to nonproliferation. Japan already has the ability to produce weapons grade material at the Tokai Mura pilot plant; their proposed commercial facility is less of a problem from the point of view of precedent vis a vis a more troublesome country than the pilot facility which is already in operation. We therefore propose to seek a mutually agreeable arrangement with the Japanese as to timing, safeguards and other institutional and technical measures regarding their follow-on commercial plant.

Authorizations for either retransfers or reprocessing in-country can be structured on the basis of specified programs. This structure should be consistent with our views on the release mechanism of any international plutonium storage (IPS) system (see Tab H). For example, the U.S. could ask the country owning the spent fuel to specify quantities and timing for reprocessing in an agreed reprocessing plant, the resulting plutonium to be used in specified breeder or advanced reactor RD&D programs. The specifications could include:

- deposit in an effective IPS;
- release in accordance with IPS to a specified MOX fabrication plant and end use; and
- conditions on the resulting fuel or unirradiated plutonium (e.g., to be used in specified research).

Finally, negotiation of these generic authorizations would be in the context of concrete movement by these countries towards an improved nonproliferation regime. In conjunction with US willingness to accommodate the priorities in these countries programs, we should seek their support for:

- deferral for the time being of commercial recycle of plutonium in current generation

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light and heavy water reactors;

-- an effective IPS; and

-- a number of other additive, nonproliferation elements identified in Tab A that go beyond reprocessing and plutonium use.

In the case of EURATOM, we should seek prior consent rights in the context of US agreement to exercise them in the above manner. Recent bilaterals with the UK and France indicate their willingness to consider this kind of pragmatic solution.

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TAB H

Issue: Pam
Views on International Plutonium Storage (IPS) Regime

A. Background

The genesis of IPS primarily stemmed from the desire of the URENCO enrichment partners (U.K., Netherlands, FRG) to have satisfactory international arrangements for any plutonium that might be produced from URENCO supplied fuel in Brazil. Dutch requirements necessitate establishment of some kind of IPS in this respect. The French also want IPS as a chapeau for their bilateral arrangements on plutonium return.

The IAEA convened an expert group which plans to produce in 1981 a draft IPS agreement. All relevant countries are participating; and, with the exception of Argentina and perhaps India, want to move towards early agreement on a scheme.

U.S. representatives have participated constructively but have been agnostic as to whether a satisfactory IPS could be devised. We have been concerned that IPS not legitimize premature separation of plutonium and supplant national controls. It is widely assumed, however, that the U.S. could not afford to stay out of IPS.

B. Issues

1. What is the most effective IPS we are likely to realize?

It is an international regime administered in accordance with Article XII(A) (5) of the IAEA Statute which:

- a. Establishes a norm that all civil plutonium for which there is no specified immediate use should be deposited in an international store, subject to release by the IAEA only upon satisfaction of certain conditions.
- b. Provides for international oversight (over and above existing safeguards which are continuous for separated plutonium) of plutonium from separation to irradiation and requires:
 - (i) specification and verification of end use and intermediate processing and transport;

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- (ii) Limits on release, timing, and quantities; consistent with end use and intermediate processing and transport requirements;
 - (iii) best available safeguards and physical protection;
 - (iv) return to an international store if a breach of these conditions occurs; and
 - (v) special review of plutonium research.
- c. Does not prevent exercise of national controls by the U.S. (or other suppliers) when release would be prejudicial to the achievements of U.S. nonproliferation objectives or would otherwise jeopardize U.S. defense and security interests.

As long as the U.S. participates actively with other countries, the above may be achievable. Without such participation, a significantly less effective regime is likely to be agreed.

2. How does this regime enhance nonproliferation and not legitimate wide spread plutonium use?

The legitimacy of plutonium use is a function of what countries in fact do. Advanced countries will experiment with breeders and advanced reactors; INFCE recognizes the importance of such experimentation in countries with large economies and electric grids; reprocessing and plutonium exist. Existence of IPS will not materially affect this; but even if it did, there most probably will be an IPS with or without us.

U.S. ability to defer plutonium use until clearly needed is a function of the acceptance of our arguments as well as our legal rights. IPS will reinforce the perception that plutonium is a particularly dangerous material and legitimize actions to assure that it is used only for specified peaceful purposes under safeguards.

On the other hand, IPS will also produce arguments that national controls should be subsumed by it. And, IPS does not remove the possibility of abrogation or physical seizure during domestic unrest or war.

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We must thus continue to emphasize that other nonproliferation measures (e.g., restraint on commercial thermal recycle) are also necessary and avoid the perception that IPS solves the plutonium problem.

3. How can we assure that IPS doesn't abridge the rights of the U.S. and other suppliers to prohibit plutonium release where there is a significant proliferation risk?

IPS will not proscribe particular uses or particular programs. The U.K. and France -- and (if it does not affect their programs) the FRG and Japan -- agree that national controls may need to be applied in addition to the international system. The acceptability of this approach will depend on the degree to which we are able bilaterally to accommodate most countries which now have or plan to use plutonium. (This is why we propose moving forward with bilateral understandings that reflect the priorities in these countries' programs.) In order to avoid double or even triple jeopardy (uranium producer, enricher, and reprocessing state controls in addition to IPS), there is also a need to harmonize national controls.

4. How will IPS help deal with unsafeguarded plutonium in non-nuclear weapon states?

Today, this involves only India and probably Israel and Pakistan. It is unlikely that these countries, which will not put their plutonium under safeguards, will agree to IPS. On the other hand, all other such countries currently with civil plutonium have it under safeguards and are prepared to submit to IPS. Of countries which might in the near future have plutonium--Brazil and Argentina--Brazil will per force agree to IPS. Argentina is a question mark; but, if all the others agree, pressures on Argentina to join would be great. In either event, the non-joiners would clearly be a small exposed minority.

5. Will the U.S. and other nuclear weapon states need to place their excess civil plutonium in IPS?

We believe, as do the U.K. and France, that this is essential for psychological purposes, although there are differences as to the definition of what civil plutonium would be subject to IPS. In 1976 President Ford stated that the U.S. would be prepared to place

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its excess civil plutonium into an effective IPS
if one were established.

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National Security Archive,
Suite 701, Gelman Library, The George Washington University,
2130 H Street, NW, Washington, D.C., 20037,
Phone: 202/994-7000, Fax: 202/994-7005, nsarchiv@gwu.edu