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Policy Review Committee, Presidential Decision Paper, 'Nonproliferation Planning Assumptions'

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Summary:

The paper elaborates options for President Carter's nonproliferation policy.

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PRC PRESIDENTIAL DECISION PAPER

Nonproliferation Planning Assumptions

We face difficulties in implementing our nonproliferation policy, and need guidance on planning assumptions for negotiations with Europe and Japan and for the Nonproliferation Treaty (NPT) Review Conference. Our objectives are to avoid deterioration of our relationships with key allies on nuclear issues and to strengthen the nonproliferation regime. The key issue is:

-- Should we for these objectives be prepared to consider longer term program-related approvals of reprocessing of US-origin fuel and use of the derived plutonium in Europe and Japan? If so, under what terms? Resolution of this issue has international and domestic implications of which you should be aware.

Other issues addressed in this paper are:

-- our attitude towards an international plutonium storage regime; and

-- longer term fuel assurances to reinforce the NPT regime.

None of the recommendations or alternatives presented require changes in law or entail direct budget implications. While we would begin negotiations on the basis of preliminary guidance, further Presidential guidance would be sought later as required.

This paper was developed at the request of the PRC by an interagency group including representatives of the Departments of State, Energy and Defense, JCS, ACDA, NSC, DPS and CEQ.

I. WHERE WE STAND*

You initiated the International Nuclear Fuel Cycle Evaluation (INFCE), now completed, to provide for an inter-

* A more detailed description is set out at Annex A.

national technical reassessment of the fuel cycle from the point of view of both energy development and nonproliferation. INFCE's analysis, and the trends of the past few years, are both encouraging and disappointing.

We have successfully dealt with potential problems in Korea and Taiwan. Many countries now recognize that: plutonium cycles and other sensitive aspects of the fuel cycle pose proliferation risks; plutonium recycle in conventional reactors (thermal recycle)* is marginally economic at best; reprocessing is not technically or economically necessary for waste disposal; and sufficient global production of uranium to meet the projected demand of current generation reactors at least into the first quarter of the next century appears feasible. Further, recent trends in nuclear power development (slippage in demand, increases in uranium supply, more efficient conventional reactors, increased capital costs of breeders, technical and political difficulties with reprocessing) reinforce our arguments against premature commitments to plutonium cycles.

On the other hand, we have made no real progress on certain dangerous proliferation situations, particularly in India, Pakistan and South Africa. Most of the key industrialized countries are even more concerned than we about energy security and hence remain committed to breeder and advanced reactor development for energy security reasons and to large amounts of reprocessing capacity beginning as early as the '90s; a few (Belgium, Italy, FRG, Japan) wish to preserve a thermal recycle option; many (UK, France, Japan and others) still believe reprocessing is a desirable (if not technically necessary) precursor to waste disposal; and the UK and France continue to regard the provision of reprocessing services to other countries as a major commercial interest. Planned European and Japanese reprocessing programs could result in an accumulation of plutonium between 1990 and 2000 substantially in excess of the

* Widespread thermal recycle means plutonium flows to wherever there are light water power reactors.

needs of planned breeders and advanced reactors.* This could increase pressures for thermal recycle. While the desirability of restraint in the export of sensitive technologies is now generally acknowledged, there remain differences between ourselves and some of the other suppliers on what is sensitive and when, and under what conditions, such exports might be justified (e.g., the Swiss sale of a heavy water production plant to Argentina).

Most countries view us as an unreliable supplier despite the fact that international nuclear markets have worked reasonably well and the U.S. has generally met its commitments. European countries and Japan cite uncertainty regarding our consent to use of US-origin material in their reprocessing and plutonium use programs, and developing countries cite a lack of assured availability of nuclear fuel, reactors and technical assistance.

These perceptions are creating tension. We lack controls over US-origin spent fuel in EURATOM, and they resent the U.S. Nuclear Nonproliferation Act (NNPA) threat to cut off nuclear cooperation if they do not provide us with a veto over reprocessing. Other industrialized countries in which we have controls over US-origin spent fuel (Japan, Sweden, Switzerland) resent the uncertainties of our case-by-case approach and being treated less favorably than EURATOM. Developing countries consider nuclear fuel cycle restraints discriminatory and contrary to the NPT.

Our supply leverage is waning. If we are unable to negotiate controls over spent fuel attributable to future exports to EURATOM, more than 70 percent of European/Japanese spent fuel will be free of U.S. controls by the year 2000. And, even if we can negotiate such controls, only 50 percent of such

* See Annex B. There is great uncertainty regarding future plutonium supply and demand balances. If past reprocessing difficulties continue, there would be little or no excess plutonium through the year 2000. If, on the other hand, programs proceed exactly as planned, European and Japanese produced plutonium could exceed breeder and advanced reactor needs by as much as 100 metric tons in 1990 and over 350 metric tons in 2000. One possible intermediate scenario indicates in 1990 a rough balance between supply and demand in Japan (and only a 20 metric ton excess in EURATOM); but this particular scenario could increase to roughly a 100 metric ton excess in Europe and a 60 metric ton excess in Japan by the year 2000.

spent fuel will be U.S. controlled by that date.* Europe is rapidly replacing us as a vendor of fuel and reactors to the developing world.

II. WHY DO WE NEED GUIDANCE NOW?

Guidance is desirable for the following reasons:

-- Certain policies of the U.S. and other key nuclear partners (in EURATOM, Canada, Australia) were explicitly interim pending INFCE's completion.

-- Renegotiation of our agreements for cooperation is underway pursuant to the NNPA. This includes our effort to obtain consent rights over reprocessing of U.S. fuel in EURATOM; you have extended the deadline for this until March 1981, but we need to move now if we are to have any chance of concluding an agreement by that date and influence these countries' schedules and rationales for future reprocessing and plutonium use. On the other hand, we could extend the EURATOM deadline annually and continue case-by-case treatment of reprocessing and plutonium return requests without affecting the physical needs of planned European and Japanese requirements for several more years.

-- Parallel Canadian and Australian negotiations with EURATOM threaten to undercut our own efforts. Australia, for example, hopes to agree with EURATOM in early 1981 on a formulation permitting use of Australian origin plutonium for any peaceful non-explosive purpose (breeders, thermal recycle, waste management).

-- Decisions on a number of plutonium use cases cannot easily be deferred, and would be facilitated by guidance on these issues.

-- An IAEA Expert Group plans to produce a draft international plutonium storage (IPS) agreement in 1981; we need to influence this effort so that it does not prejudice our controls over US-origin material and other nonproliferation interests.

* While obtaining controls over non-US origin material used in U.S. reactors would increase our leverage, we will not get such rights retroactively.

-- U.S. non-sensitive supply assurances would help ameliorate criticism at the August NPT Review Conference. Also, a UK-Yugoslav stimulated move in the IAEA to consider a universal, nondiscriminatory code of nuclear trade will be influenced by our approach to supply assurance generally. Part of the motivation behind the code is to limit supplier flexibility and restore confidence in supply relationships.

III. PLANNING ASSUMPTIONS

A. Objectives/Improved Nonproliferation Regime

This paper assumes that the Administration's basic nonproliferation objectives should be maintained. Accordingly, we propose to:

-- seek specific improvements in the international nonproliferation regime;

-- restore confidence in the U.S. as a predictable, reliable partner;

-- avoid overtly discriminatory approaches that would increase North-South tensions and erode support for the NPT; and

-- reduce tensions with allies through a modus vivendi with those firmly committed to breeder and advanced reactor programs.

Support of the other major suppliers is of great importance to maintaining and improving the nonproliferation regime.

Recommendation

We propose, consistent with the NNPA, to seek common approaches with the other major suppliers to:

1. Limit reprocessing and plutonium use; this would include:

-- deferral of commitments to commercial thermal recycle for a specified period;

-- avoidance of excess national stockpiles of plutonium;

-- obtaining from EURATOM controls over spent fuel derived from future exports, and from all countries over disposition of US-origin material after initial use in breeder and advanced reactor programs.

-- rigorous nonproliferation constraints for plutonium cycles; and

-- relating the timing of new reprocessing capacity, to the extent possible, to plutonium needs for specified breeder and advanced reactor RD&D programs.

2. Continue restraint in the export of sensitive nuclear technology and material (especially enrichment, reprocessing and breeder technology).

3. Require NPT type full-scope safeguards for significant new supply commitments.

4. Increase political, technical and financial support in the IAEA for improved safeguards.

5. Strengthen supplier state export control and international cooperation in dealing with "problem" countries like Pakistan. (This could include improvements in Supplier Guideline implementation regarding dual use items, gray area items, sensitive technology, and end use controls.)

We would also continue to seek (6) stronger commitments to spent fuel storage (including regional and international approaches) as an alternative to reprocessing for waste management; (7) multinational auspices, where appropriate, for sensitive facilities; (8) commitments to design and dedicate future civil enrichment capacity to produce low enriched uranium only; (9) additional emphasis on improvements in "once through" technology and low enriched uranium stockpiles, as alternatives to breeders for providing energy security; and (10) negotiation of additional rights and conditions required by the NNPA in our new agreements of cooperation.

Approve_____ Disapprove_____

B. Reprocessing of US-Origin Fuels and Use of the Derived Plutonium

Since our policy statement of April 1977 and enactment of the NNPA, we have pursued a cautious, case-by-case approach to the reprocessing of US-origin fuel over which we have consent rights. Current practice permits (i) case-by-case approvals of retransfers of US-origin fuel to the UK and France for reprocessing where there is spent fuel storage congestion or where the reprocessing contract predates our April 1977 policy and the country involved is being helpful on nonproliferation matters; and (ii) limited reprocessing in Japan under the "Tokai Mura" agreement of 1977 and its extensions. In addition, there have been no retransfers of plutonium, but some requests are now pending.

Our purpose has been to limit accumulations and use of separated plutonium in Europe and Japan and thereby avoid precedents which, if widely emulated, could pose significant proliferation risks. However, our practice applies in fact now only to Japan, Sweden, Spain and Switzerland.*

The primary contributors to any plutonium accumulation by the year 2000 over and above that needed for breeders and advanced reactors would be three major new light water reactor reprocessing facilities planned in the next two decades: a new French facility under construction; a new UK facility already licensed and under construction; and a Japanese plant in preliminary planning stage (corporation formed). The U.S. influence on reprocessing programs in Europe is derived primarily through our control of the Japanese contribution (24 percent) to the design through-put of these new facilities.**

Since most of the rest of the material to be reprocessed in Europe is outside our control, U.S. controls can at best reduce, but not eliminate, plutonium surpluses in Europe and consequent pressures for thermal recycle. Moreover, our vetoing Japanese transfers of U.S. spent fuel to Europe could cause Japan significant financial penalties; the Japanese are committed to pay 27 percent of the construction costs of these new European reprocessing plants and at lease five percent of the reprocessing charges have already been paid.

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* In terms of US-origin spent fuel to be reprocessed between now and the year 2000, over 90 percent of the impact is on Japan.

** If these plants operate at partial capacity, the Japanese portion of the total could be higher; but excess plutonium over and above that needed for breeders and advanced reactors would be significantly reduced.

We have a more substantial potential lever over Japanese reprocessing in that we control most of the spent fuel that would be involved. However, it will be politically difficult for the U.S. (1) to constrain Japanese programs if we cannot constrain European programs, and (2) to force Japan to forego a future domestic reprocessing alternative to the exorbitant rates, uncertainties, delays and foreign dependence involved in contracts for reprocessing in Europe. U.S. leverage cannot prevent excess reprocessing capacity in Europe; if this results in the unfortunate precedent of thermal recycle, U.S. constraints on the Japanese program will be of limited, if any, precedential impact. This argues strongly for a cooperative approach which has some chance of influencing European, as well as Japanese, programs.

On the other hand, the U.S. is not legally obliged to permit use of US-origin Japanese material in a European or Japanese national plant.* It can be argued that U.S. acquiescence in a premature Japanese reprocessing plant would abdicate what influence we have, set a damaging precedent and add to the excess of separated plutonium.

The basic policy questions are:

1. Should we use existing supply controls to limit retransfers of US-origin spent fuel from Japan and other countries to European reprocessing plants (even though this impacts on contractual commitments) to attempt to slow European reprocessing and European and Japanese movement towards plutonium use generally?

2. Alternatively, should we accommodate (under carefully stated conditions) breeders and advanced reactor RD&D and related reprocessing in allied countries in order to reduce tension, try to extend our controls to EURATOM, and elicit greater cooperation in mutually strengthening the nonproliferation regime?

Options

There are essentially two courses: (1) codify the interim practice of case-by-case approvals (Option 1), or (2) move in limited ways to accommodate specified breeder and advanced

* Japan, France and the UK are on notice that we would not necessarily approve transfers of US-origin Japanese fuel for reprocessing under contracts entered into after April 1977.

reactor RD&D programs in certain countries (Option 2). There are a number of variations to the second course; this paper presents you with two (2(a) and 2(b)).

The options envisage that our consent to reprocessing would relate to specified reprocessing plants. We would make every effort to relate consent to reprocessing in new reprocessing plants to need for additional capacity for breeders and advanced reactors. All of the options could also, subject to budgetary limitations, be combined with international cooperation on improving the efficiency of "once through" technologies and permitting stockpiling of low enriched uranium.

The impact of the options on our ability to retard or prevent the spread of sensitive technologies (e.g., reprocessing for thermal recycle or advanced reactor RD&D) to countries beyond EURATOM and Japan will depend on two considerations: (i) the likely ability of the proposed approach to elicit from EURATOM and Japan increased restraints on the export of such technologies (EURATOM countries are currently the principal potential suppliers), and (ii) the degree to which the option permits undesirable precedents for other countries with respect to plutonium use. Supplier cooperation can halt export of sensitive technologies; but an undesirable precedent could create pressures for access to such technologies. Our analysis on these points is presented in the advantages and disadvantages of each option.

Option 1 (Codify current practice)*

Codify the practice adopted in September 1978 for the interim period of INFCE of case-by-case decisions on requests for retransfer of US-origin spent fuel for reprocessing in the UK or France; approving such requests only:

(a) where there is a clear showing of need (i.e., spent fuel congestion) and the requesting country has made appropriate efforts to expand its storage capacity; and

(b) where congestion is not demonstrated but the reprocessing contract predates 1977, if the requesting country is actively cooperating in exploring more proliferation resistant methods of spent fuel disposition and approval would directly further major nonproliferation objectives.

Requests for the return and use of the resulting plutonium would be treated on a case-by-case basis consistent with the NNPA.

* Current practice does not now apply to EURATOM.

The purpose of this option would be to discourage foreign reprocessing and plutonium use by avoiding predictable use of US-origin material except in very limited circumstances.

Advantages

This option would emphasize U.S. non-cooperation in breeder programs, reprocessing, and plutonium stockpiles which could trigger thermal recycle and greater plutonium use. It would avoid the risk of the US being perceived, domestically and in other countries, as endorsing plutonium use.

If current trends continue with respect to nuclear power growth, and schedules for new reprocessing and breeders, we may find that pressures in Japan and Europe to reprocess US-origin fuel will diminish. This argues for avoiding any accommodation involving relaxation of our opposition to plutonium separation and use, when it is not clear that such an accommodation will prove necessary. This is especially so if with waning leverage we cannot in fact negotiate significant nonproliferation improvements in return for an accommodation on reprocessing and plutonium use.

There are no technical reasons why comprehensive settlement of reprocessing and plutonium use issues cannot be postponed for a while. Returns of US-origin plutonium to Japan need not be faced on any significant scale for 5-6 years; reprocessing requests in the same period will involve pre-1977 contracts.

This option would avoid any risk of creating additional domestic pressures for commercial reprocessing and thermal recycle, for Clinch River or for otherwise accelerating our breeder program.

Disadvantages

This approach would have very negative impact on our allies in Europe and Japan at a time when broader U.S. interests argue for increased cooperation. It would be perceived as hostile to European and Japanese breeder and advanced reactor programs, insensitive to their energy security needs, and an attempt to dictate their fuel cycle choices.

This option would not be an acceptable basis for renegotiation of our agreements for cooperation, including obtaining limits to reprocessing and plutonium use in EURATOM (which accounts for 70 percent of the spent fuel projected from EURATOM and Japan through the year 2000).

Perpetuating a discriminatory stance (i.e., controls over Japan and others, but not EURATOM) may cause Japan and others to question their close nuclear tie with the U.S. and encourage them to disengage.

Such an effort would also likely catalyze early Japanese construction of a second reprocessing plant. The practical consequence is to penalize a key ally and a country which has been exceptionally helpful in comparison to EURATOM on sensitive country questions and on promoting NPT adherence.

Since many other key countries are waiting to see how we come out with EURATOM, our renegotiation efforts with Japan, Korea, Spain, Switzerland, Sweden and others would be delayed. Whatever remaining influence we have over European programs would be further impaired.

While we might restrict somewhat plutonium flows in the short term (5-10 years), we would lose the opportunity to exact concessions to improve the nonproliferation regime in return for easing exercise of our consent rights. Further, this option would have little impact on the legitimacy of breeder and advanced reactor R&D in advanced countries; this has been acknowledged by INFCE and would continue in Europe, Japan and the U.S.

Alternative Approaches

In considering how we might exercise our consent rights more predictably, we rejected two alternatives: (i) the Australian approach of permitting programmatic approvals of reprocessing and/or use of the derived material for any specified non-explosive peaceful purpose (thermal recycle and waste disposal, as well as breeders and advanced reactors); and (ii) the Yugoslav approach, with which the UK and Canada have shown some sympathy, of moving towards a phaseout of bilateral controls in favor of an international code of nuclear trade and international plutonium storage.While (i) would reduce remaining tensions with allies and (ii) would reduce discriminatory aspects of current practice and the options described below, they both involve excessive proliferation risks.

There follows an option on limited generic and program-

matic agreements in certain cases.* This option assumes negotiators would seek the best possible nonproliferation regime in return for greater predictability regarding consent rights. There are two areas of difference among your advisors. These are explained following the option.

Option 2

Case-by-case consideration of reprocessing or plutonium use requests, as in Option 1; but we would offer advance understandings, consistent with the NNPA, covering certain limited categories of requests:

(a) Generic agreement to transfers for reprocessing in France or the UK under contracts predating the April 1977 policy (including Spain, Switzerland, Sweden, and Japan); and

(b) Programmatic agreement to reprocessing and plutonium use in specified countries, when required to meet the scheduled lifetime plutonium needs of specifically identified breeder and advanced reactor RD&D programs. This means, in the case of agreements covering the next ten years, programmatic agreement to reprocessing and plutonium use in EURATOM and Japan. The proposal would agree to

* As used herein, "generic" agreement envisages agreement in principle in accordance with an agreed schedule to a series of transfers of specified US-origin spent fuel for reprocessing in an agreed facility in another country; such agreement would not cover use of the derived plutonium over which we would retain a veto. "Programmatic" agreement envisages agreement in principle in accordance with an agreed schedule to a series of shipments of US-origin spent fuel for reprocessing in an agreed facility (either in country or in another country) and/or, in accordance with an agreed schedule, use of the derived plutonium in specified breeder and advanced reactors which are part of an agreed program. In both cases, the schedules would be subject to periodic review and adjustment; permits (MB-10's) would then be routinely granted in accordance with the agreement in principle and schedule, except where changed circumstances demonstrably posed a significant proliferation risk.

use of U.S. plutonium in cases where other plutonium is not reasonably available.*

Advantages

Predictable ground rules along these lines covering reprocessing and use of plutonium would facilitate negotiations with EURATOM and Japan on an improved nonproliferation regime. This approach has a chance of obtaining limits on European plutonium use and thus achieving a greater degree of EURATON/Japan equality. It would show sensitivity to allied energy security needs, and would help remove an irritant in our relations.

This option is consistent with present U.S. domestic policy and law. It strongly discourages, for a limited time, thermal recycle which was one of the economic justifications for our own commercial reprocessing. It supports breeder and advanced reactor RD&D in advanced industrialized countries only. It leaves decisions on breeder and advanced reactor commercialization to national governments; this is consistent with your April 1977 statement.

This option would cover for ten years most of the physical needs of existing EURATOM and Japanese programs on a predictable basis. By limiting the amount of spent fuel to be reprocessed, it could reduce incentives to build new reprocessing capability and to produce surplus plutonium.

Disadvantages

This option could be read abroad as relaxation of U.S. resistance to movement toward plutonium cycles. It may be difficult to provide a clear breakpoint between Europe and Japan and developing countries; there could thus be pressures to extend the coverage of generic or programmatic approvals. It does not address distinctions between RD&D and commercialization.

Once presented, it would be hard to retreat from the option if we do not achieve meaningful concessions for improving the

* In practice this would be worked out in negotiations with the country concerned; we would seek to ensure that available non-US-origin plutonium was used first. We would try to achieve this within reasonable commercial and economic parameters, and periodically review foreign programs to determine actual requirements for U.S. plutonium, taking into account as fully as possible other plutonium availability.

nonproliferation regime. Some EURATOM countries might resist an effort to curtail thermal recycle. U.S. industry could try to use the option to press for commercial reprocessing and breeder commercialization in this country. It could be introduced as an election campaign issue.

Sub-Options

There are two different ways to implement Option 2 as it applies to (i) breeder and advanced reactor RD&D programs, and (ii) transfers for reprocessing under post 1977 contracts.

Sub-Option 2(a)

(i) Grandfather breeder and advanced reactor RD&D programs substantially committed to prior to April 1977 only in EURATOM and Japan, without deciding at this point either in favor of or against future commitments to permit US-origin fuel to be used in additional programs (post 1977 programs would be addressed on their merits at a later time); and

(ii) do not indicate willingness to consider generic agreements to transfers for reprocessing under post 1977 contracts.

Sub-Option 2(b)

(i) An evolutionary approach which would provide for agreement to programs substantially committed to in the next ten years in countries where there is no demonstrable proliferation risk which have undertaken NPT or equivalent obligations and have (or participate in) a large electrical grid and an advanced nuclear program (only Western European countries and Japan currently fit this definition; but (without commitment) this approach does not foreclose eligibility of additional countries in future); and

(ii) indicate willingness to consider generic agreements with countries with good nonproliferation credentials and no spent fuel storage alternatives,* or where it is in our nonproliferation interest to remove spent fuel because of specific proliferation concerns (the

* Sweden is a case where we might wish to approve transfer for reprocessing but where there is no interest in plutonium return. The Swedish plutonium could well be absorbed in the approved breeder RD&D program of another state.

request is for general guidance to permit flexibility in negotiations; concrete proposals would be referred for specific approval).

Under either sub-option, the list of programs committed to in the next ten years for which we would initially be prepared to provide plutonium would be essentially the same, with one minor possible exception in Japan. This exception should be addressed in the course of working out the arrangement with the Japanese.

Advantages - Sub-Option 2(a)

This would maintain our 1977 position that additional commitments to plutonium cycles are premature and pose proliferation risks. But it accommodates (as a matter of equity and fairness) breeder and advanced reactor RD&D programs where "substantial commitments" had been made prior to adoption of this policy.

It would draw a clear line against retransfers for reprocessing for countries with no breeder or other advanced reactor RD&D programs.

Disadvantages

This approach would substantially reduce our ability to harmonize our policy with key allies since it leaves open our posture toward their longer-range programs (our agreements normally run 30-40 years). It would not halt new breeder and advanced reactor RD&D in EURATOM. Assuming this option delays Japanese programs (but does not permit agreement with EURATOM), EURATOM will continue its programs, and we would be accused by the Japanese and other Europeans of discrimination. Under this assumption, the option would make nuclear cooperation with EURATOM contingent on annual waivers of export criteria under the NNPA. It would reduce our ability to obtain nonproliferation improvements such as deferral of thermal recycle and full-scope safeguards for future supply.

The option could be viewed by countries such as Korea (where we have considerable cooperation) as discriminatory. While it would treat all future breeder and advanced reactor programs equally, it implicitly favors the most advanced countries and makes no explicit provision for others to be eligible in future. Developing countries (such as Yugoslavia and Mexico, NPT non-aligned leaders) could see this as discriminatory and a denial of comparable benefits to the have-nots. It could thus cause problems at the August NPT Review Conference and additional North-South tension.

The option would not be conducive to working out satisfactory new nuclear cooperation arrangements with such key supporters of our non-proliferation efforts as Sweden. It does not permit us to work out arrangements for taking fuel from countries of specific proliferation concern under circumstances where interim storage in the U.S. or elsewhere is not available.

Advantages - Sub-Option 2(b)

Predictable ground rules for programs committed to over a ten year period would facilitate negotiations with our allies, obtain some limits on European plutonium separation and use, and achieve greater European/Japanese equality.

The evolutionary approach is publicly defensible on energy, economic, and nonproliferation grounds and is less likely to stimulate North-South confrontation, while limiting plutonium separation and use for a considerable period to a few major countries.

This option is consistent with present U.S. domestic nuclear policy and law.

Disadvantages

While this option is less vulnerable to charges of discrimination than other options, it may still raise some developing country opposition. Developing countries who do not meet the tests could claim they have the same right as more advanced nations to R&D for possible future energy requirements. The option opens the door to others joining the plutonium club.

Although there is a weaker case for accelerating breeder RD&D in the U.S., U.S. industry could use the option to argue that we should proceed with commercial reprocessing and early breeder deployment in this country. On the other hand, the option could be criticized by some domestic critics as backing away from policies announced at the outset of your Administration.

Presidential Decision

Approved:

Option 1

(Codify current practice) _____

The following support this option:

Option 2

(Accommodate breeder and advanced reactor RD&D programs in EURATOM and Japan)

The following support this option:

Sub-Option 2(a)

(Grandfather approach)

The following support this alternative:

Sub-Option 2(b)

(Evolutionary approach)

The following support this alternative:

C. International Plutonium Storage (IPS)*

Most of the key countries** (including Australia, Canada, Brazil, the UK, France, Netherlands and Sweden) want to establish an IPS for excess plutonium in the next year or two by implementing that part of the IAEA statute providing for IPS. There is, however, as yet no consensus on the scope and content of the regime. A few countries (e.g., FRG, Argentina) worry it could be too restrictive. An IAEA Expert Group (with participation by the representatives of 24 countries including the U.S.) hopes to produce in 1981 a draft charter for political-level consideration.

* See Annex C for details.

** The FRG has recently indicated it would prefer to avoid an IPS unless it provides certainty of return of German plutonium from any IPS; this could reflect their negative attitude towards French desires to use IPS as a part of the mechanism for controlling plutonium flows in EURATOM while not subjecting all French civil plutonium to the scheme.

PD-8 (which predates the IAEA Expert Group) directed that we should discourage the IPS concept because it could, by reducing nonproliferation objections to plutonium cycles, catalyze them. On the other hand, the NNPA instructs us to seek international arrangements for the storage of sensitive nuclear materials. The primary advantages of an effective IPS would be to reduce national stockpiling of excess plutonium and provide greater international oversight and obligations regarding separated plutonium. The principal risk is that IPS could reduce our political ability (not legal right) to deny plutonium releases for certain purposes or to certain countries. But there may be an IPS with or without us. An IPS without us (but with participation of other key countries) would likely be weaker than one with us and would also make it politically more difficult for us to deny plutonium releases sanctioned by others.

The issue is: how should we participate in the IAEA Expert Group so as to steer its discussions in directions that enhance, not hurt, our nonproliferation objectives?

Recommendation

We should participate actively in the IAEA IPS study and generally seek the best possible IPS from a nonproliferation point of view. We should, however, reserve on our ultimate willingness to participate in any IPS that might be established, and make every effort to assure that IPS neither significantly erodes our bilateral controls over US-origin plutonium nor significantly impacts military uses of U.S. plutonium.

Approve_____ Disapprove_____

D. Improved Non-Sensitive Supply Assurances--Reinforcing the NPT Regime*

Prospects for a favorable outcome to the August 1980 NPT Review Conference could be improved by additional non-sensitive supply benefits (longer term fuel licensing, low enriched uranium stockpiling and improved technical assistance) for countries which accept NPT or equivalent obligations and do not demonstrably pose a significant proliferation risk.

* See Annex D for background.

Because such benefits would be of particular interest to developing country NPT parties, initiatives in this area could reduce North-South tension regarding nuclear energy development and mitigate perceived discrimination inherent in agreeing to reprocessing and plutonium use only in certain cases. Additional non-sensitive assurances, coupled with effective spent fuel storage programs, could also make the "once through" cycle more attractive. Finally, such assurances could benefit U.S. industry (in a period of industry weakness) through reducing foreign perceptions of our unreliability and possibly through increased U.S. enrichment sales. On the other hand, longer term licensing would reduce somewhat our ability routinely to use licensing to influence quietly countries' nuclear fuel cycle choices when we judge them to increase weapons capability. Such assurances could also make nuclear power marginally more attractive to developing countries.

This paper offers an initiative only in the area of longer term fuel licensing. Initiatives in the areas of low enriched uranium stockpiling and technical assistance will be submitted to you separately following examination of their budgetary implications.

The issue is: do the additional political and fuel assurance benefits of moving toward long term (up to life-of-reactor) licensing outweigh the reduction of supplier leverage this would entail?

Recommendation

Lengthen the period of licensing (longer than five years) for LEU* power reactor fuel for NPT or equivalent countries which do not demonstrably pose a proliferation risk. There are a variety of potential implementing options, all of which have the objective of providing increased fuel assurance to countries in good nonproliferation standing. What we seek is authority in these cases to be able to provide up to life-of-reactor assurances.

While it is unclear whether the NRC will agree to this approach, there are indications that Congressman Bingham and Senator Glenn believe something along these lines would be helpful. If you approve this approach, the Executive Branch will work with the NRC on measures we could announce at the NPT Review Conference.

Approve_____ Disapprove_____

* low enriched uranium

IV. DOMESTIC AND CONGRESSIONAL IMPLICATIONS

A. Implications for Domestic Programs

Option 2 on reprocessing and plutonium use recognizes and accommodates breeder and advanced reactor RD&D programs in advanced nations with good nonproliferation credentials. We assume, however, that the future pace of the U.S. breeder development program should continue to be dictated by our own economic, energy resource, environmental and nonproliferation considerations. Given the continued decline in the projected demand for electric power and our large domestic uranium reserves, we do not now foresee basic changes in the pace of our breeder program. The proposed options are consistent with continued opposition to construction of the Clinch River Breeder Reactor as uneconomic, technically obsolete and unnecessary to timely development of our breeder option. They are also consistent with our view that, given net disadvantages of thermal recycle, the Barnwell reprocessing facility is not needed.

The U.S. energy situation is different from that of Europe and Japan. Our mix of natural resources (including indigenous natural uranium) permits more flexibility in choosing a long term energy stragegy. It is for this reason that Europe and Japan have adopted a relatively more aggressive posture regarding breeders and advanced reactors and related reprocessing. While Europe and Japan could rely for some years on conventional nuclear power, they have chosen to pursue breeder and advanced reactor options to enhance their energy security.

You should be aware, nonetheless, that the Scientists and Engineers for Secure Energy (including seven Nobel laureates) have in a recent letter asked you in light of INFCE to urge the NRC promptly to proceed with, and conclude, the Generic Environmental Statement on Mixed Oxide Fuels (GESMO) to assess wide scale use of plutonium in the U.S. Representative Dan Marriott (R-Utah) has recently introduced a bill which would force the NRC to reopen GESMO; this was defeated in committee by one vote, but will likely be re-introduced.

GESMO and related plutonium licensing proceedings were suspended in 1977 for the duration of INFCE because of their possible adverse impact on our policy of setting a nonproliferation example by deferring indefinitely in the U.S. commercial reprocessing and thermal recycle. This is not the time or place to take on this issue, but some believe a more accommodating posture toward breeder and advanced reactor RD&D programs abroad

could increase domestic pressures to reopen GESMO. If GESMO were to be reopened, it could be interpreted by other countries as reconsideration of our nonproliferation objections to thermal recycle.

All of the alternate planning assumptions maintain our opposition to thermal recycle. All agree that we should continue to oppose reopening the GESMO, Barnwell, and thermal recycle.

Finally, a principal thrust of the planning assumptions is improving U.S. reliability as a supplier. This could enhance the U.S. commercial position and curtail the erosion in our share of nuclear markets.

B. Congressional Reactions

We have consulted with members and staff in the House and Senate, in particular Congressmen Zablocki, Bingham and Fuqua, and Senators Glenn, Javits and Percy. No one argued necessarily for standing pat on our present practices. Nor was there opposition as such to accommodating specified breeder and advanced reactor RD&D programs in Europe and Japan, although there may well be differences of view as to the nonproliferation improvements we should seek in return and the extent and precise terms of such an accommodation. With White House concurrence, we exposed Congressional members and staff to the details of Option 2 and Sub-Option 2(b); there were no objections of principle. The spectrum of views ranged from the cautious to those who thought a change was long overdue.

All agree that our leverage is declining to some extent and that we need to move to a more predictable approach to reprocessing and plutonium use in Europe and Japan. Congressman Bingham and Senator Glenn both want to be sure that we obtain the best possible bargain in terms of improving the nonproliferation regime. Senator Glenn believes a rigorous IAEA international plutonium storage regime for excess plutonium could be an important element of what he had in mind in drafting Section 104 of the NNPA which urges you to seek international approaches to the fuel cycle. Congressmen Zablocki and Bingham hope for parallel progress on dealing with problem countries and development of improvements in light water reactor efficiencies and possibly breeder developments such as the fast mixed spectrum reactor.

Congressman Bingham thought providing Europe and Japan greater predictability on reprocessing and plutonium use was much less sensitive than, for example, granting the pending licenses

for Tarapur. Congressman Fuqua believes that harmonization of policies with the Europeans and Japanese on reprocessing and plutonium use would be desirable and could bring us significant nonproliferation benefits.

Our staff level consultations indicate that many on the Senate Foreign Relations Committee believe we should stop trying to dictate European and Japanese fuel cycle choices.

Attachments:

Annex A
Annex B
Annex C
Annex D

ANNEX A

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WHERE WE STAND

Net assessments of the success of our nonproliferation policies are difficult. We have had some successes but also some reversals and resistance.

On the positive side, we have gained broad (not universal) recognition or agreement on:

- major suppliers embargoing for now new exports of reprocessing technologies;
- substitution of low for highly enriched uranium in many research reactors;
- the marginal economics of plutonium recycle in light water reactors (thermal recycle) and safe nuclear waste management not requiring reprocessing;
- the uncertainty of breeder economics and breeder options' making sense now only in highly industrialized states;
- reprocessing plants being limited in number and designed to facilitate safeguards;
- new enrichment plants generally avoiding production of weapons usable material; and
- general recognitiion of the need for improved safeguards and physical security of nuclear material, including an international physical security convention.

We have also concluded agreements containing the new NNPA-required controls with Australia, the IAEA, Indonesia, Norway, Peru and Canada.

In addition, recent trends in nuclear power development reinforce our arguments against early or widespread commitments to plutonium separation and use. The steady decline in projections of nuclear power growth and electricity demand, and increased estimates of prospective uranium reserves, strengthen the economic case for the "once through" strategy. Similarly, increased estimated capital costs of breeders, as compared to conventional reactors and improvements in light water reactors, are delaying breeder deployment (even in France, the nation most nearly committed to breeders). Following political objections to the construction of a large reprocessing facility in the FRG, the earlier assumption of reprocessing as a precondition to waste disposal is no longer beyond question. Political

obstacles to new reprocessing facilities have caused major adjustments in the German program, and similar obstacles could possibly arise elsewhere. Chancellor Schmidt believes the FRG must continue breeder RD&D; it is premature to decide on commercialization.

On the negative side:

- countries (such as France, Japan, the UK, and the USSR) are committed to breeder and advanced reactor development which they judge vital to their energy security (notwithstanding our disclaimers; they view our policies as a threat to their programs);

- the UK, France and Japan still believe in the desirability of reprocessing as a precursor to waste disposal;

- Japan is determined to proceed with a new 1200 ton reprocessing plant (although timing is uncertain), and large new light water reprocessing plants in France and the UK are in part being financed through commitments to reprocess fuels for Japan and others;

- within the last year, the Germans have begun to consider additional reprocessing, unfortunately, with emphasis on small, dispersed facilities;

- several nations will not relinquish the thermal recycle option;

- several of the major countries (EURATOM, Japan, Korea, Spain) are not moving very fast on renegotiating their agreements with us;

- we have not achieved acceptance of full-scope safeguards in Israel, India, South Africa and Argentina, and support for safeguards has not been translated into real commitments of resources necessary to make them effective;

- INFCE did not produce technological fixes to eliminate plutonium; and

- several countries continue to export sensitive nuclear technology to countries of proliferation concern.

EURATOM countries and Japan share our worries about "problem" countries (like Pakistan, India, Iraq and South Africa); but they view our nonproliferation policies as counterproductively harsh when they impact on countries like themselves who do not pose proliferation risks. They continue to attach greater urgency than we to movement towards plutonium cycles. Also, many nations resent the NNPA; surveys

of our Embassies suggest that most cooperating countries no longer view the U.S. as a reliable supplier.

In INFCE, unilateral changes in supplier state policies were strongly criticized, as was the lack of predictability in the exercize of supplier states' control and retransfer rights. Japan is pressing us to move away from case-by-case approvals and provide long-range predictability as to how we would exercize our rights. While Australia and Canada generally share our views on export policies, Australia appears willing (in current negotiations with EURATOM) to go further than all the options in this paper to assure Europe that supplier rights will be exercised in a more predictable manner.

We also face moves in the IAEA and UN designed to constrain supplier flexibility; Yugoslavia has successfully promoted a UNGA resolution calling for a Conference on Nuclear Trade by 1983, and the IAEA is considering an initiative to develop an international code on nuclear trade.

Finally, there will be criticism at the NPT Review Conference of suppliers' not living up to their commitments to provide for the fullest possible cooperation with NPT parties in the peaceful uses of nuclear energy. Many NPT parties (developed and developing) see little benefit in NPT. Some complain that large non-NPT parties (India) are treated better than smaller NPT parties. While we have since 1975 sought supplier agreement to make NPT or equivalent full scope safeguards a condition of major new supply commitments -- thus providing major incentive to accept NPT type obligations-- France and Germany have resisted this approach. There are indications that France is now considering moving in this direction but France has intimated its attitude on this issue could be influenced by our attitude towards greater predictability in the exercise of our consent rights. Germany will not move in the absence of France.

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ANNEX B

EURATOM and Japanese Reprocessing and Breeder and Advanced Reactor Programs and Plutonium Supply and Demand

France, the UK and Japan all have ambitious reprocessing and breeder and advanced reactor plans and programs. These programs have slipped substantially in recent years (due to difficulties in making the technologies work and public acceptance problems) and are not likely to proceed on schedule in the future, but the countries concerned remain committed to them. Reprocessing capacity and more than 15 tonnes of separated plutonium already exist in these countries; 2-3 tonnes of it in non-nuclear weapon states.

The French program is the most ambitious. Their current civilian light water reactor reprocessing facility has been operating since 1972; they plan considerable additional light water reactor reprocessing capacity in the late 1980s and a major fast breeder reprocessing facility in the 90s. This reprocessing capacity is intended to meet French breeder program requirements and offer reprocessing services to Germany,* Belgium, Sweden,* Switzerland, Spain, Italy and Japan. The French Phenix breeder program has one demonstration reactor (Phenix) in operation, and plans operation of four large prototype reactors by the mid 90s.

The FRG has a pilot light water reactor fuel reprocessing plant in operation, and is thinking of a larger scale plant, the first to begin operation in the early 90s. It is currently working on a pilot breeder reactor to begin operation in 1985; it will decide at that time whether to proceed with a large breeder demonstration in the mid 90s.

Projections as to the plutonium supply and demand relevant to these programs depends on the assumptions as to (i) the timing and actua throughput of existing and new reprocessing capacity and (ii) the timing of actual operation of breeder and advanced reactors.

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* Largely to meet legal requirements on waste disposition as opposed to specific plutonium needs.

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-- If, as has been the case in the past*, delays in construction of commercial light water reprocessing plants continue and, when constructed, they operate at less than a third of design capacity, there would be little or no surplus of plutonium over and above breeder and advanced reactor needs through 2000.

-- If, on the other hand, reprocessing and breeder and advanced reactor programs were to proceed exactly in accordance with plan, separated fissile plutonium in EURATOM and Japan could exceed breeder and advanced reactor needs by as much as 100 metric tons in 1990 and over 350 metric tons in 2000.

There is thus great uncertainty. United Reprocessors, which had originally been designed to control excess capacity in Europe from a commercial point of view, has become defunct; its European members believe that for the foreseeable future spent fuel arisings will greatly exceed reprocessing capacity.

On the other hand, existing and planned breeder reprocessing facilities roughly match after-1990 breeder program needs in both EURATOM and Japan, excepting needs for initial cores which could be supplied by one light water reprocessing plant of about half the capacity of the current French plant.

One possible intermediate scenario indicates that until 1990 there is a rough balance between Japanese reprocessing and likely returns of plutonium from Europe and plutonium demand for its breeder and advanced reactor RD&D programs. There could be a roughly 20 tonne excess in Europe (all in the UK and France) in the same period. From 1990 to 2000, plutonium supply could substantially outstrip demand (roughly 100 tonnes in Europe and 60 tonnes in Japan) if new light water reactor spent fuel reprocessing generally comes on stream as planned and operates after a 4-5 year start-up period at or near design capacity. If this happens, pressures to use excess plutonium in thermal recycle would be substantial.

* The only existing commercial plant (UP-2 in France) has been operating at less than 25 percent of capacity since 1972; the Tokai pilot plant in Japan has so far been shut down more than it has operated. The cumulative throughput of the Eurochemic plant in Belgium over a seven year period (now shut down) was less than twice its annual total capacity; the Windscale facility in the UK shut down after reprocessing 100 MTU of high burn-up fuel; and the only commercial reprocessing plant ever operated in the US was shut down after 5½ years in which it reprocessed less high burn-up fuel than it was designed to handle in one year.

-- Most of the projected EURATOM excess supply in the year 2000 is attributable to two plants in France (under construction) and one in the UK (on which licensing is completed); delay of either of these plants until after 2000 or delay of both until 1995 would reduce the potential European excess to the year 2000 by over 75 percent.

- Most of the Japanese excess capacity in the year 2000 is attributable to the planned commercial light water reprocessing plant (corporation formed and site selection beginning); deferral of this plant's operation until 2000 would bring Japanese supply more in balance with their breeder and advanced reactor demand until that time, but keep Japan dependent on existing contracts with Europe for reprocessing services.

The U.S. lacks veto rights over reprocessing of EURATOM spent fuels within EURATOM. We do, however, control essentially all spent fuel presently being stored in Japan. Even if we are successful in negotiating reprocessing rights over US-origin light water reactor spent fuel exported in future to EURATOM and are able to maintain present controls over materials already exported to Japan, U.S. control will cover less than 50 percent by the year 2000. This is due in large part to projected new non-US enrichment capacity. If no new controls are negotiated with EURATOM and Japan, U.S. controls will decrease to less than 30 percent of total spent fuel in EURATOM and Japan by the year 2000.

Further, roughly 65 percent of total EURATOM/Japanese annual reprocessing capacity projected by 2000 is attributable to plants in EURATOM and it is unlikely that EURATOM countries will give us controls over plants where construction or front-end financing has begun and/or licensing been completed.

On the other hand, if we were to seriously limit transfers of U.S. controlled spent fuel from Japan to France and the UK for reprocessing to meet only the immediate plutonium needs of current programs, we could conceivably delay additional European reprocessing capacity in France and the UK. But such action on our part could cause the Japanese major financial penalties. The Japanese have contracted with France and the UK to pay 27 percent of the construction costs of the new reprocessing plants (roughly $335 million in 1970 dollars) and $2.2 billion in 1970 dollars for reprocessing charges ($110 million of which was paid at the time the contract was signed). These commitments have probably now doubled. The Japanese have in addition already paid the French $100-200 million in front-end construction costs. Finally, the roughly 5600 metric tons of Japanese spent fuel planned to be reprocessed before 2000 (nearly all of which is of U.S. origin) represents only 24 percent of these European plants designed throughput. The effect of limiting the Japanese transfers to these additional European reprocessing plants is thus very uncertain.

ANNEX C

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International Plutonium Storage (IPS)

The IAEA Statute (to which the U.S. is a party) states that in order to prevent national stockpiling of plutonium, provision should be made for the deposit with the IAEA of excess plutonium not being used for specified peaceful purposes under safeguards.

This provision has never been implemented; but most of the key countries (including Australia, Canada, Brazil, the UK, France, the Netherlands and Sweden) want to implement it in the next few years. Establishment of IPS is a precondition for shipment of fuel from URENCO (the UK, FRG/Dutch group) to Brazil. A few countries (e.g., FRG/Argentina) worry that IPS could be too restrictive.

An IAEA Expert Group (with representatives from 24 countries) has been studying IPS since 1978; it hopes in 1981 to forward a draft IPS charter to the IAEA Director General who will refer it to the IAEA Board of Governors and member states for further action. U.S. participation in the study has made it clear that IPS should not be used to legitimize unjustified reprocessing and that a U.S. decision to support IPS cannot be made until after it becomes clearer that an effective regime can be worked out. There, however, may well be an IPS with or without us.

While PD-8 discouraged IPS, Sec. 104 of the NNPA instructs us to seek, inter alia, international arrangements for the storage of special nuclear material. (A separate provision called for comparable efforts with respect to spent fuel storage.)

The potential advantages of an effective IPS are:

-- reduction of national stockpiling of excess plutonium;

-- greater international oversightof separated plutonium through permitting plutonium release only for specified, immediate end uses and international verification of such uses (Existing IAEA safeguards are not designed to ensure dedication to particular end uses.);

-- some increases in the political disincentive to IPS when IPS conditions are breached; and

-- a new mechanism for imposing, as a condition of release from international storage, a guarantee of non-explosive use and enhanced safeguards and physical protection.

One key problem with IPS is the risk that IPS release provisions could be used to diminish bilateral control rights. We must assure that IPS will not make it difficult to exercise bilateral controls both over the end uses to which US-origin plutonium is put (e.g., not thermal recycle) and the countries in which it would be used (e.g., not countries such as Libya). There will be pressures in any IPS negotiation to circumscribe national controls, and an agreed international release mechanism will make it more difficult politically to deny releases for certain purposes or in certain countries even thought we preserve the legal right to do so. On the other hand, there may be an IPS subscribed to by major suppliers, and it may be politically difficult to influence an international release permitted by say, France or the UK if we stay outside IPS.

Other risks include (1) the possibility of IPS being used to legalize premature reprocessing or MOX fuel fabrication activities; (2) IPS international storage sites becoming too widespread or being located in regions that pose proliferation risks; and (3) pressures to apply IPS to military plutonium in nuclear weapon states.

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ANNEX D

IMPROVED NON-SENSITIVE SUPPLY ASSURANCES -- REINFORCING THE NPT REGIME

Background

As noted in the paper, additional measures are needed with respect to supply assurances and enhanced technical assistance. These measures would serve three ends:

(1) They could improve prospects for a favorable outcome to the NPT Review Conference, by reducing some of the acrimony on Article IV. A number of countries -- both developing and developed -- believe that by denying access to sensitive technology and changing the conditions of supply regarding non-sensitive materials and equipment, we have failed to live up to our obligations under this Article.

(2) If additional supply benefits are restricted to NPT parties,* it could enhance prospects for further adherents, and reduce the likelihood of withdrawals from the Treaty. Except for a few minor IAEA technical assistance programs and new supply assurance measures taken within the past few months (see below), the U.S. provides no concrete benefits for being an NPT party which are not available to other states as well.

(3) Improved reliability of supply should be of direct assistance to U.S. commerce and industry. While the primary reasons for a reduction in our nuclear exports are the declining demand for reactors abroad, and the fact that U.S. firms -- through their licensing arrangements -- built their own foreign competition, some loss of sales of equipment and components may have been due to foreign perceptions of our unreliability.

Supply Assurance Measures Taken to Date

In the past twelve months, a number of measures have been taken to improve the nuclear export licensing process, eliminate unnecessary reviews, enhance our reputation of reliability, reduce administrative burdens, and place most of our residual emphasis on export measures dealing with states of real proliferation concern. Several of these steps are significant:

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* The U.S. has announced that all benefits available to NPT parties would also be available to full parties to the Treaty of Tlatelolco, who have concluded an appropriate safeguards agreement with the IAEA. We did so because Tlatelolco parties with INFCIRC/153-type safeguards agreementshave accepted all of the obligations of NPT parties. For the moment, the practical consequence of this announcement is limited to Colombia.

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(1) In the past, we only licensed individual reloads of power reactor fuel, requiring a country to obtain another license roughly each year. Recently, we announced that we were willing to license up to five reloads in time periods up to ten years to all power reactors located in NPT parties with whom we have a nuclear relationship.*

(2) We have approved a general license for components for all US-supplied reactors and a substantial number of others located in NPT parties. This eliminated from licensing approximately $100 million per year in components, which is one of our most important nuclear exports.

(3) In the context of the Export Disincentives Study, the President decided to eliminate the requirement of an MB-10 for retransfer in those cases where the retransfer was foreseen on the face of the NRC license.

(4) In the same study, the President also directed that for those dual-purpose items which we control for non-proliferation purposes (including over a billion dollars in computer exports), the licensing process should be adjusted to focus primarily on states of proliferation concern and eliminate licensing reviews for others. This has been accomplished.

(5) The President has a proposal under consideration in context of the NRC reorganization which will eliminate the need for Presidential review for approximately 75 per cent of the high enriched uranium the U.S. supplies. This has been a sore point to our allies.

Need for Additional Measures in the Fuel Assurance Area

A recommendation for a further lengthening of the period of validity for low enriched uranium fuel licenses is made in this paper. If this measure is approved, a suitable announcement will be prepared for the NPT Review Conference. We shall also be coming forward to you shortly with initiatives on low enriched uranium stockpiling and technical assistance.

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* Because of its special status and other problems, we have not extended this liberalization to Taiwan. Any accommodation for Taiwan needs to be given separate consideration.