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## THE WHITE HOUSE

WASHINGTON

September 7, 1976

DECISION

MEMORANDUM FOR: The President

FROM: Robert Fri *RF*

SUBJECT: Nuclear Policy Review

The Nuclear Policy Review Group that you established on July 19 has completed its analysis. You directed that the review examine three interrelated issues:

1. What should be U.S. policy on nuclear exports, safeguards, and related matters to reduce the potential for weapons proliferation?

2. What should be the U.S. policy on reprocessing spent fuel from commercial power reactors to recover plutonium and unused uranium, and on the development of the U.S. reprocessing industry?

3. Are U.S. plans for handling and storing nuclear waste adequate?

Working in collaboration with thirteen interested agencies, we have developed several recommendations and options for your consideration. There is general agreement that the proliferation threat is sufficiently serious to warrant a change in U.S. nuclear policy. In most cases, there is also agreement among your advisers on major recommendations, although some important if secondary differences remain. There is, however, a divergence of view on the central direction that your nonproliferation policy could take, and more specifically on the nature of your endorsement, if any, of reprocessing to recover plutonium.

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E.O. 12356, Sec. 3.4.

MR98-30, \*5; State letter 7/2/98By lt, NARA, Date 10/19/98~~CONFIDENTIAL~~

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To present these issues to you in an orderly way, you have before you:

1. This memorandum, which provides necessary background, presents major options requiring your decision, and recommends next steps.
2. Tab A, which contains three short option papers on which we need your decision to resolve secondary issues.
3. Tab B, which briefly describes other recommendations on which all your advisers concur.
4. Tab C, which contains agency views.

BACKGROUND

The problems addressed in this memorandum arise from the nature of the nuclear "fuel cycle." The nuclear fuel cycle begins with mining of natural uranium. The amount of fissile material in natural uranium--the isotope U-235--must be increased to produce fuel for U.S.-type nuclear power reactors; this step is called enrichment. Fuel assemblies are fabricated from the enriched uranium and burned in a reactor. The resultant spent fuel is stored temporarily at the reactor site.

After burning in a reactor, nuclear fuel contains a mixture of plutonium, slightly enriched uranium, and radioactive waste products. This spent fuel must be cooled for several months at the reactor site. The unresolved issue is what disposition should be made of it thereafter.

Industry has long assumed that the spent fuel would be reprocessed to recover the plutonium and uranium, which would be recycled into new fuel, thus reducing the amount of fresh enriched uranium required. The radioactive wastes separated during reprocessing would be prepared for permanent disposal. However, the desirability of reprocessing is open to question, and other technologies for handling the spent fuel may be available.

The major concern in reprocessing is the recovery of plutonium, which is both extremely carcinogenic and the principal material needed to make nuclear explosives. The plutonium is inaccessible while it remains in spent fuel, but once separated in a reprocessing plant, plutonium could be diverted for a national weapons capability or seized by terrorists.

On the other hand, the plutonium and uranium in spent fuel contains residual energy value, and recovering it could extend the U.S. fuel supply for current reactors by 50%. If no more natural uranium is discovered, the added fuel would be important to the U.S. reaching its targets for installed nuclear capacity by 2000. However, the economics of recovering the energy value are uncertain, and could at best reduce by 2% the cost of generating electricity in the U.S.

A. International Considerations

The oil embargo has made nuclear power a more attractive energy option. Indeed, it has been our policy to help other countries decrease their dependence on imported oil. The emergence of nuclear power as an alternative to oil imports both accelerates demand for nuclear power worldwide and stimulates commercial opportunities for nuclear supplier nations.

These and other forces create powerful incentives for the spread of reprocessing, and hence separated plutonium. Chief among these forces are:

- . Legitimate interests in an assured supply of nuclear fuel.
- . The fast breeder reactor, which ultimately requires plutonium for its operation. France will soon start to build a commercial breeder.
- . International competition among suppliers, which can lead to sale of enrichment and reprocessing facilities as an inducement for reactor sales or as a commercially profitable venture in its own right.
- . Desire for a nuclear weapons option.



The U.S. has acted to control proliferation of weapons material. For many years we dominated the market for nuclear reactors and fuel, and we used this influence to impose restraints on our customers. In so doing, we have:

- . Promoted the international safeguards system to detect any diversion of sensitive nuclear material.
- . Induced many nations to foreswear nuclear weapons through the Nonproliferation Treaty (NPT), and, through the NPT, to accept international safeguards.
- . Refused, since 1972, to distribute technical information on reprocessing.
- . Developed common conditions that all suppliers will apply to their nuclear exports to limit the possibility of proliferation.

However, several countries remain outside the NPT and we have remaining differences with both other suppliers and many consumers as to how far we can go to restrain the spread of sensitive technology and material. France, the FRG, and Iran feel we have already taken too rigorous a stand.

Although we have made progress, we are losing our leverage to make more. Our role as a reliable supplier, the main lever for our nonproliferation strategy, has eroded.

- . We remain the dominant enrichment supplier, but our future order books have been closed since mid-1974.
- . As other suppliers have entered the field, our share of the reactor market has dropped from 80% to 55%, and there have been virtually no significant U.S. reactor sales in the past year.
- . We do not offer reprocessing services, and it is possible that reprocessing capacity outside the U.S. will be available to service all non-U.S. spent fuel by 1985. Several major industrial

nations currently plan to operate commercial reprocessing facilities, but the only one now in operation is a plant in France. Small, non-commercial facilities have been constructed in several countries, notably including India, which could not have produced its nuclear explosive without such a facility.

#### B. Domestic Considerations

There are no commercial reprocessing facilities now operating in the United States, and none are likely to operate until the Nuclear Regulatory Commission (NRC) makes the "GESMO" (Generic Environmental Statement on Mixed Oxides) decision, expected in 1977. This decision will determine whether or not plutonium recycle can be licensed in the U.S. Industry is also concerned about the uncertainties of licensing the first reprocessing plants, even if GESMO is approved.

Although this regulatory problem is frustrating, it is not clear that the U.S. needs to build reprocessing capacity rapidly. The economics of the technology are uncertain, and even if favorable, would produce only a 2% reduction in the cost of generating electricity. The energy content of the spent fuel is not needed to fuel current reactors for several more years. ERDA has deferred until 1986 an Environmental Impact Statement on commercialization of the breeder, and so plutonium is not required now for this technology. There are, of course, proliferation risks associated with reprocessing that should be resolved before its widespread use.

These economic and regulatory uncertainties surrounding reprocessing lead us to believe that government investment or guarantees may be required to stimulate initial construction.

The U.S. does not have a nuclear waste disposal capability. Although some of the basic technology is known, it was not until the past year that a comprehensive program for developing waste disposal technology was conceived. It is now hoped that the first waste repository will operate in 1985.

MAJOR POLICY OPTIONS

The major issue facing you is a directional one--what should be the U.S. position on the use of reprocessing internationally and domestically. Although reprocessing is not the only nonproliferation issue, it is of central substantive and symbolic importance as the technology that creates plutonium. As a result, its acceptability is the point on which many people divide, including your advisers.

Before presenting the options, we briefly describe the nature of the tradeoff involved and the importance of your decision.

First, the nuclear industry and utilities want a decision on reprocessing. The industry stresses its benefits and generally promotes the technology. Utilities appear to be more concerned about eliminating uncertainty, and therefore place more emphasis on taking some stand on reprocessing than on precisely what that stand is.

Public, press, and Congressional views show concern over reprocessing, and over nonproliferation generally. The Congress has extreme problems with the course of our nonproliferation policy, and has made several proposals to tighten sharply and abruptly our policy, often in ways that could disrupt our nonproliferation efforts. Simultaneously, the press has taken an editorial interest in the subject, generally to deplore past inaction and occasionally to commend one or the other of the new proposals made in Congress or elsewhere. As a result, there is considerable sentiment for a forceful nonproliferation initiative domestically, and this sentiment is by no means on the liberal fringe. Congressman John Anderson is actively seeking nonproliferation legislation, and the Wall Street Journal encouraged us to defer reprocessing for a number of years.

In contrast to the domestic view, our international stance toward nonproliferation argues for some moderation. We are party to thirty bilateral agreements for nuclear cooperation, and our obligations under these Presidential agreements cannot be taken lightly. Other countries, mostly our allies, also supply nuclear reactors and fuel services,

and the forging of common supplier policies is central to the worldwide control of proliferation. A radical toughening of our current policy could undercut the evolution of common supplier policies, since some other suppliers would regard such a stance as politically unrealistic, and possibly as an opportunity to further their own commercial interests at our expense.

Notwithstanding the difficulty of striking the delicate balance between the "tough" stance some seek domestically and international realism, we believe it is crucial to do so. The U.S. remains, uniquely in the world, the leader in nuclear policy. Unless we are prepared to embark on a responsible but aggressive policy of nonproliferation, it is unlikely that others will.

Your advisers agree on certain steps that we believe you can take to exercise nuclear policy leadership. Specifically, we should:

- . Develop, with heavy U.S. backing, more rigorous international controls over plutonium inventories, more effective safeguards against diversion of this material, and tighter security to prevent theft.
- . Negotiate actively to persuade our nuclear customers to defer or forswear national reprocessing, and to accept more rigorous safeguards and inventory controls.
- . Be prepared to invoke sanctions when our safeguards agreements are broken.

Beyond these steps, you have four alternate major policy directions open to you.

1. Accept that reprocessing is inevitable, and undertake a program designed to lead to its use only under carefully controlled conditions worldwide. In this option, you would take the stand that plutonium recycle is essentially with us, and the need is to control its development. Since we still

have some time before reprocessing becomes a commercial activity, we would urge the world to use this time to ensure reprocessing develops safely in selected, stable countries. In the meantime, we would favor a go-slow posture toward recycling internationally.

To implement this position, you would support (including Federal assistance) the operation of a first commercial reprocessing plant and associated recycle facilities in the U.S. We would use this facility to demonstrate new international controls and to gain experience needed for a U.S. reprocessing industry. Internationally, we would work toward a system of assured fuel supply for all countries agreeing to tougher controls, and we would offer incentives to other countries (e.g., offer to purchase their spent fuel) to support this alternative to national reprocessing.

2. Adopt a more conservative stance on reprocessing, not accept its inevitability, and mount a major program to determine how to reprocess safely. This stance could lead to the same result as Option 1, but the tone of your position on reprocessing would be significantly different. You would state that economic interests should not dominate nonproliferation goals, and point out that there is little urgency in developing plutonium recycle. Therefore, you would take the stand that reprocessing should not go ahead unless demonstrably safe means to do so are available, or unless acceptable alternate technologies not involving separated plutonium cannot be developed. Until these conditions are satisfied, the U.S. would oppose the use of plutonium as a fuel internationally. Under this option, we would support operation of a first U.S. plant to answer the outstanding questions relative to safeguards and economics, and would offer near-term incentives of assured supply to other nations, as in Option 1.

3. Oppose the use of reprocessing, and take a very tough line in doing so. This option would, if successful, produce a completely different result from either Option 1 or 2. We would view reprocessing as a serious danger, and would oppose its use. As an alternative to reprocessing, we

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would attempt to develop new technologies to get the energy value from spent fuel without separating the plutonium; failing this, we would be prepared to dispose of spent fuel without regard to its value. In any case, we would not have to face the plutonium problem.

4. Pursue our existing policies. We would continue to resist the spread of national reprocessing, but do so within the framework of existing supplier and consumer agreements, and selectively toughen our stand with countries like India. In general, we would avoid dramatic unilateral initiatives, engage in intensive but usually unheralded diplomatic efforts, and expect the domestic controversy to pass. Since we would approve of reprocessing, although not in some nations, we would support its development in the U.S.

Considerations affecting your decision among these options are:

Option 1: Accept Reprocessing

- . Is in keeping with the views of other responsible suppliers, although Canada favors a tougher stance against reprocessing, and the FRG and France a somewhat more liberal one.
- . Some nations (like Brazil and perhaps Pakistan) will proceed with national reprocessing ventures to fulfill nationalist ambitions, although we could anticipate that many nations would go along with our position.
- . Should receive favorable reaction in some quarters of the Congress, press, and public, but would not go far enough in the eyes of domestic critics who believe that the proliferation risks of reprocessing outweigh its energy or economic advantage, at least for several years.
- . Is compatible with development of breeder reactors by allowing a technology important to the breeder to advance, but at a measured pace.
- . Would resolve many of the fuel cycle uncertainties affecting U.S. nuclear power.

- . Commits the U.S. to a technology program that could cost \$1 billion through 1985 (assuming an NRC decision favorable to recycle), and involves starting up an existing commercial plant at Barnwell, South Carolina. However, half of the cost is for a nuclear waste facility that must be built in any event to demonstrate waste disposal technology.
- . Commits the U.S. to offer incentives (e.g., fuel buy-back) that could have a cumulative cost of \$200 million by 1985 and \$2-5 billion through 2000.

Option 2: Conservative Stance

- . Is a variant on Option 1 that has not been presented to agencies for their formal views. ERDA, FEA, Commerce, Defense, and State have indicated their support of Option 1, but have not yet had the opportunity to consider Option 2. Their views will be obtained.
- . Might strengthen our position slightly with suppliers other than France, and with most consumer nations.
- . Would be more favorably received than Option 1 by most of Congress and the press.
- . Avoids explaining why you support reprocessing in the face of uncertain economics and proliferation risks.
- . U.S. industry might be less inclined to proceed with private investment in reprocessing than under Option 1.
- . Does not substantially change the program or costs adopted under Option 1, and could produce the same results.
- . Is recommended by the Director of your Nuclear Policy Review Group.

Option 3: Oppose Reprocessing

- . Would enhance our ability to persuade sensitive countries such as Korea, Pakistan, Republic of China and Iran not to acquire reprocessing facilities by removing the arguments that we were seeking to deprive them of a capability we were exploiting ourselves.
- . Would be unlikely to dissuade France and the United Kingdom and possibly others from proceeding with their reprocessing plans to which they already are committed.
- . Would have the U.S. forego a known technology (reprocessing) in return for pursuing alternates whose viability has not been demonstrated.
- . Would deprive the U.S. of employing a reprocessing facility as a test bed for developing new safe-guards techniques.
- . Could be quite popular in some sectors of Congress, the press, and the public.
- . U.S. private sector reprocessing capability would fold, utilities might slow down nuclear reactor orders, and the breeder would be called into question.
- . Incurs roughly about the same costs as Option 1, but to develop alternative technologies.
- . Is supported by ACDA, CEQ, and EPA.

Option 4: Business As Usual

- . Continues sound existing policies, but on a business-as-usual approach that does not deal with the currently perceived threat of proliferation through reprocessing.
- . Could take some credit for progress already made.

- . Other nations, who already view us as overreacting, would be reassured by our steadiness.
- . Essentially unacceptable in Congress and by most of the press and the public.
- . Little or no cost would be incurred.
- . None of your advisers recommends it.

DECISION

- \_\_\_\_\_ Option 1 (Accept Reprocessing)
- \_\_\_\_\_ Option 2 (Conservative Stance)
- \_\_\_\_\_ Option 3 (Oppose Reprocessing)
- \_\_\_\_\_ Option 4 (Business As Usual)

NEXT STEPS

To implement the option you select, as well as the recommendations contained in Tabs A and B, steps must be taken to lay the groundwork for announcing your decisions.

1. The NSC and Domestic Council should prepare one or more Presidential messages announcing your new initiatives. (One possibility is for you to announce your international policy in a speech at the U.N. General Assembly on September 27.)
2. The Secretary of State should enter into appropriate consultations prior to your message.
3. We believe that the credibility of any statement that you make on sanctions will be tested in public eyes by what the Administration actually does on problems immediately before us, especially regarding India, Taiwan, Egypt, and Israel. We recommend that the NSC be directed to recommend to you our stand on each of these problems before any statement is made.

*nr*  
Steps also need to be taken to implement your decisions. We recommend that a Nuclear Policy Council be established for this purpose. (Tab A presents options for organizing this Council.)

1. The Council should be directed to prepare implementation plans as soon as possible.

*nr*  
2. State, ERDA, Commerce, and the Nuclear Policy Review Group strongly believe that, until we open our enrichment order book, we have very little leverage with other countries. We note that even if NFAA is passed this year, it will be 6 months until Congress approves the contracts and 12 months more before UEA has secured enough orders and a power supply to enable it to commit finally to construction. We strongly urge that you establish a policy that can be announced at the time of final action on NFAA, and that allows the U.S. to offer more binding assurances of enrichment supply to other countries than we now can. The Council should be directed to prepare options for your consideration on this problem.

\_\_\_\_\_ Approve

\_\_\_\_\_ Disapprove

*argue*  
Tab A contains other issues requiring your decision, and you will find the place to indicate your decision at the end of the brief discussion of each issue in Tab A.

Tab B describes other actions on which your advisers all concur. Please check below your approval for us to initiate these actions.

\_\_\_\_\_ Approve

\_\_\_\_\_ Disapprove

Tab C contains agency views.



OTHER ISSUES FOR DECISION

This Tab presents three issues requiring your decision.

Retroactivity of Restraints

Issue: By what means should the U.S. attempt to apply new export restraints to existing agreements for nuclear cooperation?

Our agreements for nuclear cooperation impose restraints on the cooperating nation designed to limit the possibility of proliferation. In all new and amended agreements, tighter restraints than those negotiated on old agreements need to be applied. These largely pertain to controls over reprocessing, explicit exclusion of peaceful nuclear explosives, etc. However, only three new agreements are being negotiated and as few as three amendments are expected in the next five years. Few of our 30 existing agreements contain all of the restraints we would prefer to apply to future agreements. Thus, the tighter restraints will have little effect unless also applied to existing agreements.

The issue for decision is, therefore, the nature of our policy for applying restraints retroactively. We do not consider that a policy of no retroactive application to any preexisting agreements is proper or feasible. However, to apply restraints retroactively will produce difficult problems for our partners, since it is difficult to enforce new conditions without appearing to be in material breach of preexisting intergovernmental understandings.

There are two options open to you:

1. Unilaterally insist on retroactivity. Under this approach, new restraints would be immediately applied to all licenses for nuclear exports, and provisions made to accord the President authority to exempt specific licenses from them. No new materials or reactors could be exported in the absence of a specific Presidential exemption, unless the other government agreed to the new terms. After 18 months, we would apply still more rigorous conditions. The Presidential exemption would become increasingly hard to exercise and, at some future

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E.O. 12356, Sec. 3.4.

MR 98-30, #6; NSC Ltr 7/21/98

By LT NARA, Date 10/19/98

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time, would effectively expire. Meanwhile, we would seek to negotiate the restraints retroactively into existing agreements, using the prospect of a licensing cutoff as a lever.

The effect of this option would be to place in jeopardy exports to at least EURATOM, the IAEA and Argentina, and possibly to others, including Switzerland, Brazil, India, Portugal, South Africa, Spain, Japan and Finland. As the restraints tighten, it would become increasingly difficult to deal with EURATOM, the IAEA, Canada, Argentina, Brazil and India.

Thus, this option:

- . Would penalize both nations of concern (e.g. India) and our allies (e.g. EURATOM).
- . Does not put as severe pressure on some nations of particular concern (e.g. Korea and Republic of China).
- . Would likely raise the serious difficulty that imposition of these new controls places us, in spirit if not legally, in material breach of existing agreements.
- . Could penalize several supplier nations, some of whom could otherwise provide reprocessing services as a way to avoid the further spread of national facilities.
- . Could produce a massive shift of nuclear trade elsewhere, since other suppliers would not adopt such standards.

On the other hand, it could be argued that this approach imposes desirable nonproliferation controls and, since several are not found in any of our existing agreements, they can only be effectuated unilaterally. If you concurred, you would be perceived by some as taking an admirably tough stand on proliferation.

None of your advisers concur in this option, but it has strong support among some members of Congress (notably Senators Percy, Glenn, Ribicoff, and Symington.)

2. A strong initiative on retroactivity. As an alternative to insisting on immediate retroactivity, you could adopt a strategy having the following major components:

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- . Apply new restraints, generally consistent with the recently adopted Supplier Guidelines, but not so rigidly couched as to compel us to contravene existing agreements.
- . Direct the Secretary of State and the Administrator of ERDA to organize a major diplomatic effort aimed at upgrading existing agreements to at least the level of the restraints indicated above.
- . Seek, through appropriate international undertakings and negotiations, retroactive application of even more rigorous restraints that clearly go beyond the terms of existing agreements.

In contrast to the first option, we would negotiate for these restraints, rather than try to impose them unilaterally. Moreover, how hard we press would be a function of the degree to which there is supplier agreement. It is believed that this option would offer a firm yet workable framework that would enable the U.S. to preserve its influence with a variety of nations, although it must be recognized that we can encounter difficult negotiation problems. This overall approach would have the virtue of signifying a generally tougher U.S. line. At the same time it would not deprive us of the opportunity to extend our cooperation and influence to a number of supplier or consumer states not meeting our preferred tests. Such an effort also could focus on restraints which other suppliers might accept if they can be convinced that they suffer no commercial disadvantages.

However, the inherently greater flexibility of this approach also can draw some domestic criticism, even though it may penalize us economically by clearly placing our new restraints beyond FRG or French practice. Some private intervenors before the NRC can be expected to press the Commission to adopt as criteria some of our longer-term stated goals in approving current licenses. Thus, success of this strategy may depend on the degree of public confidence that we are pursuing diligently a major diplomatic initiative to tighten constraints, whether they apply to new or preexisting arrangements.

Your advisers all concur in this option. We believe it would have the support of Senators Pastore and Baker, and Representatives Anderson, Price and others.

Please indicate your decision below:

Option 1: Unilateral Imposition \_\_\_\_\_

Option 2: Strong Initiative \_\_\_\_\_

Your decision on the above options will determine the basis for our cooperation with the Joint Committee on Atomic Energy on the nonproliferation bill they are writing. Based on your recent meeting with Senator Pastore, it is our understanding that we should communicate your decision to them and attempt to work out an acceptable bill. If you approve, we will proceed along these lines.

Approve \_\_\_\_\_

Disapprove \_\_\_\_\_

Domestic Program

Issue: When, and to what extent, should you announce a program to develop reprocessing technology in the U.S.?

If you select Major Policy Option 1, 2, or 4, some program to develop reprocessing in the U.S. would be required. Heretofore, you have not decided to spend Government funds on reprocessing to attain purely domestic objectives. However, we believe a U.S.-based capability is needed to further the international policies recommended in this Review. Specifically, such a program is needed to:

- . Provide a test bed for demonstrating safeguards.
- . Provide a basis for Japanese participation in multinational investment in reprocessing, and for cooperation with United Reprocessors, a European group.
- . Explore technologies other than reprocessing for getting the energy value from spent fuel.

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In the course of creating this capability, we would achieve objectives of domestic benefit, by:

- . Resolving remaining technical and economic uncertainties of reprocessing.
- . Demonstrating the solidification of nuclear waste at near-commercial scale.
- . Determining if large reprocessing plants have major economies of scale.

To meet these purposes, facilities and programs costing as much as \$800 million through 1985 may be required. Specifically, we might need:

- . To license the AGNS reprocessing plant at Barnwell, South Carolina; it was constructed at private expense.
- . To build a facility to convert plutonium nitrate (the liquid AGNS product) to solid plutonium oxide; the cost would be \$175 million, but it would be operated on a cost recovery basis.
- . To construct a waste disposal facility; the cost would be \$300-500 million.
- . To construct a prototype line to fabricate recovered fuel (mixed oxide fuel); cost would be \$15 million (assuming use of an existing building), and the private sector would build a commercial facility later.
- . To undertake alternative technology and large plant design programs; cost would be around \$50 million.

The issue is when, and to what extent, to commit to and to announce these facilities now. The considerations are:

- . GESMO: The conversion facility is subject to NRC's GESMO finding.
- . International negotiation: Since at least IAEA and Japan are involved, they should be consulted on the program before major design work begins.

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- . AGNS: We must negotiate with AGNS our liability if we encourage its operation; we think our costs will be nothing, but we cannot be sure. Furthermore, support to AGNS (owned by Gulf, Shell, and Allied Chemical) could be seen as a bailout to industry unless we incur little or no cost. Any announcement before November could be sensitive.
- . Waste disposal solidification: It is desirable to announce commitment to demonstration, but costs are large.
- . Budget review: None of the above facilities have been considered by OMB as part of the overall budget. The size of the two main facilities has not been finally decided, nor have negotiations been conducted to determine how much, if any, of the cost might be borne by the private sector.

There appear to be two options.

1. Commit publicly now to a detailed program. You would announce all the actions explicitly.

. Pro

- Sets the clearest basis for a domestic support of both international and domestic policies
- Would be a clear decision endorsed by industry
- Would be solid backing for the waste disposal program.

. Con

- Forces the hand of IAEA and Japan somewhat
- Could reduce our leverage with AGNS
- May commit to a funding level before the program details are worked out.
- Could be criticized as AGNS bailout and preemption of GESMO.

This was the only option presented for agency vote. State, ERDA, FEA, and Commerce favor it. ACDA, CEQ, and EPA oppose it.

2. Commit generally now, but save specific proposals until later. You would outline the purposes of the program, commit the Government generally to assuring that the program objectives will be met, but observe that the extent of government support, the timetable, and other details need to be worked out. We would anticipate specific actions in next year's budget.

. Pro

- Gives time to negotiate, firm up program details, and conduct budget review
- Sidesteps AGNS and GESMO problem.

. Con

- Not as strong as Option 1 in committing a domestic program in support of international goals.

This option, favored by OMB, was not presented for agency vote.

The Nuclear Policy Review Group concurs in the general approach of Option 2, provided that the commitment to the program is clearly supportive of your international policies. Negotiations should proceed to firm up program details, and be concluded by the time your budget is presented in January. This variation of Option 2 is listed below as Option 2A.

Please indicate your decision.

Option 1: Detailed commitment \_\_\_\_\_

Option 2: General announcement \_\_\_\_\_

Option 2A: Firm commitment, but  
without details \_\_\_\_\_

Management Structure

Issue: How should you ensure top level direction of the implementation of your nuclear policy decisions?

Your nuclear policy decisions will require a major implementation effort, and very close coordination of domestic and international programs. The Department of State, ERDA, and ACDA are the agencies mainly involved. Defense and the CIA have a smaller role, but should be kept informed of progress.

The Nuclear Policy Review Group that has prepared this decision paper recommends you establish a Nuclear Policy Council to implement your decisions embodied herein. There is disagreement over its membership and reporting relationship.

1. Membership. There are three options.

a. Appoint the Deputy Secretary of State, the Administrator of ERDA, and the Director of ACDA as a Nuclear Policy Council, charged with implementing initiatives approved by you. This three-person Council would be supported by a small (two or three professionals) full-time staff, headed by a senior Executive Officer. The staff should represent the elements of the agencies charged with implementing your nuclear policy.

b. Same as above, but drop ACDA.

c. Use the NSC Undersecretaries Committee (State, ACDA, NSC, Defense, CIA, Joint Chiefs of Staff) augmented by ERDA and Domestic Council representation.

The Nuclear Policy Review Group recommends Option 1.a. as the most direct way to implement your policy.

ERDA recommends Option 1.b. (drop ACDA). However, ACDA plays an important role in this area and it seems difficult and unwise to ignore them.

State recommends Option 1.c. (NSC Undersecretaries Committee). However, this Committee does not normally oversee the programmatic implementation of decisions, includes agencies not intimately involved in the main implementation tasks, and does not have staff from all the affected agencies. It should of course be kept informed, and, since the Committee is chaired by the Deputy Secretary of State, a direct channel of communication exists.

Approve:

Option 1.a. \_\_\_\_\_

Option 1.b. \_\_\_\_\_

Option 1.c. \_\_\_\_\_

2. Reporting Relationship. Regardless of membership of the Council, it should report to you through advisers representing both the domestic and international aspects of the program. All agree that, on the international side, it should be through the Assistant to the President for National Security Affairs.

There is dispute on the domestic side of this joint reporting relationship. Your options are to have the Council report through:

- a. The Assistant to the President for Domestic Affairs, as recommended by the Nuclear Policy Review Group, State, ACDA, EPA and ERDA.
- b. The Energy Resources Council, as recommended by Commerce and FEA. (FEA recommended that the Council be a subgroup of the ERC.)

The main difference is that the first option would require reporting through an element of the White House staff, and the second would not.

*Want to be*

Approve:

Option 2.a. \_\_\_\_\_

Option 2.b. \_\_\_\_\_



AGREED NONPROLIFERATION INITIATIVES

Policy on Restraints

We have reviewed several possible revisions to our policy of bilateral restraints, applied to our agreements for nuclear cooperation; and have concluded that we should reaffirm as clear policy objectives the London Supplier Guidelines as restraints over retransfer of material, replication of technology, and physical security. We believe, however, there is a need for a clearer, and in some cases firmer, U.S. restraints that ensure proper international controls of sensitive facilities and materials, and that give us leverage over the decision to create and potentially use separated plutonium.

The matter of shaping these restraints is a delicate one. They cannot be so rigid that they foreclose cooperation with nations whose nuclear policy we seek to influence, even if, for example, they are not parties to the NPT. They should be susceptible to application by all suppliers, since constraints are enhanced if everyone imposes them equally and may prove ineffectual if they do not. And they must recognize that nations with an existing reprocessing capability present a different problem from those who have no such capability. With these factors in mind, we recommend that in new and amended agreements, and as a goal for common supplier acceptance, that the U.S.:

- a. Reaffirm the Suppliers Guidelines as a minimum requirement.
- b. Adhere, in addition to the above minimum requirement, to the following publicly-articulated criteria to be considered in the review of new and amended agreements.
  - . Whether nonweapon recipients are NPT parties, or are clearly planning to adhere to the Treaty or are prepared to submit to full fuel cycle safeguards (as well as physical security) in the interim pending NPT adherence, and
  - . Whether they are prepared to forswear or postpone for a substantial period the establishment of national

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Authority MR 89-9 #11, NSC Ltr. 7/26/84

By WHM NLF Date 11/3/00

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reprocessing or enrichment activities\*, or (for nations having these capabilities) are prepared to consciously shape and schedule their reprocessing and enriching facilities to foster nonproliferation needs by delaying until economic needs are real and by satisfying the requirements of others where feasible by accepting spent fuel for reprocessing or alteration through a multinational or binational approach\*, and

- . Whether they are prepared, in principle, to participate in an international storage regime under which excess spent fuel and separated plutonium would be placed in IAEA storage and custody pending use. (From our standpoint, spent fuel is better than the storage of separated plutonium since the latter assumes reprocessing.)

It would be understood that these would be significant criteria that you would take into account in your review of new agreements or amendments to these agreements, and that departures from these standards would require your personal approval.

Should you approve these criteria for public use, you probably will be commended for taking a tougher nonproliferation stance. However, some may favor an even tougher stance. Thus, the problem of public presentation is a tricky one, given our desire to preserve flexibility to deal with non-NPT countries (notably Egypt and Israel) in selected cases when it is in our nonproliferation interest. We believe this problem can be resolved in the preparation of the final text for any address that you may give.

### Sanctions

Your advisers believe that the U.S. should communicate more convincing signals to the world community that we would view either a material violation of any nuclear safeguards agreement, or a further spread of nuclear weapons, as an extremely grave development. Although Secretary Kissinger has made this clear publicly, the relatively restrained USG

\* We would seek in all new agreements the necessary veto rights to enable us to carry out these agreements.

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reaction to the Indian situation called into question our attitude toward the sanctions question. Obviously, our entire nonproliferation policy will be impaired if a potential diverter judges that it is relatively immune from sanctions.

We recognize that some initiatives in this area could prove to be seriously counterproductive by further aggravating the political polarization between suppliers and recipients and unduly limiting to U.S. flexibility. Also, to be meaningful, any sanctions policy must gain multinational support, thus meriting close continuing consultation. Most of your advisers recommend that you issue a statement making the following points, which strike a balance between a vigorous U.S. posture and the need for attracting multilateral supplier support, without excessively alienating key recipients.

No nonproliferation and safeguards regime is likely to succeed if a potential violator judges that his acquisition of a nuclear explosive will be received with indifference by other nations. Fortunately, this is not the case, and we believe that it is clear that nuclear safeguard undertakings enjoy a very special sobriety and status among nations.

- . For its part, the United States would regard any material violation of a nuclear safeguards agreement, such as a detected diversion, to be an extremely serious affront to the world community.
- . Any further nuclear proliferation, regardless of whether it is under the guise of developing a peaceful nuclear explosive device, would undoubtedly greatly enhance global and regional instability and bring the world closer to a nuclear holocaust.
- . Accordingly, if any state materially violated a safeguards agreement to which we are a party, we would, as a minimum, immediately cut off our nuclear fuel supply and cooperation. Moreover, regardless of whether we, ourselves, are a party to a safeguards agreement, we would judge a material violation of any safeguards agreement, and particularly one with the IAEA, to be of such grievous concern to warrant immediate reexamination and broad consultations with all suppliers and consumers to discuss the nature of the punitive or remedial actions that should be taken collectively.

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We also recommend that the U.S. diplomatically: (a) seek supplier agreement to press for an IAEA decision to direct the curtailment or suspension of nuclear assistance to a state violating Agency safeguards; (b) seek a multilateral agreement to suspend or terminate cooperation with any additional nonnuclear weapons state hereafter acquiring or testing a nuclear device regardless of whether a safeguards violation is involved (while recognizing the difficulty of gaining adherence from certain key suppliers, particularly France), and (c) systematically reinforce its position on sanctions in its contacts with other nations.

Before any U.S. statement is issued, we recommend that the Department of State consult with a broad spectrum of countries to encourage the issuance of comparable statements.

If you make this statement you will be perceived as strongly supportive of nonproliferation, although some foreign nations may judge us as too menacing while some at home may criticize you for not taking even a tougher stand.

ERDA would favor tougher public statements indicating that U.S. nonnuclear as well as nuclear cooperation will be jeopardized by a safeguards violation. Your other advisers feel that this reduces our flexibility too much.

#### Storage, Safeguards, and Physical Security

1. Storage. Your advisers favor promotion of a new regime, under which spent fuel or excess national stocks of separated plutonium would be placed under IAEA custody pending use. Such a regime could reinforce IAEA safeguards against diversion by reducing worrisome national stockpiles. The U.S. has approached other suppliers and the IAEA Secretariat endorsing this concept. Although many problems would have to be resolved to bring the concept to fruition, preliminary Congressional and working-level supplier nation reactions are sympathetic. Actual implementation, however, will depend on broad supplier and consumer support.

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We recommend that you give your strong public support to the concept, and that:

- . You announce that the U.S., in principle, is prepared to place its own "excess" civil designated spent fuel and separated plutonium under IAEA custody, pending U.S. need, if a generally satisfactory and broadly applicable regime can be developed and established.
- . You also announce that the U.S., in principle, is prepared to submit a special grant to the IAEA for the purpose of helping establish the regime (if needed) and offer to provide a U.S. storage site.
- . You state that henceforth consumer willingness, in principle, to participate in such a regime will be adhered to as an important criterion for conclusion of new and amended U.S. agreements.

Since the proposed U.S. pledge to participate in the regime may bring some pressure to bear on the U.K., France and others, the Department of State should consult with these nations, and State and ERDA should consult with key Congressional leaders prior to proposed announcement to verify that there is no serious opposition.

If you approve the pledge you may get credit for taking a statesmanlike step that serves to demonstrate that the U.S. itself is prepared to accept the same constraints it is urging on others. Some others, however, may view the pledge as premature.

All agencies agree with these recommendations. Dr. Ikle favors a cautious approach.

2. International Safeguards. To help preserve the efficacy of the IAEA system, your advisors believe that major

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U.S. support and some redirection in the Agency's program are required to keep pace with the growing quantities of weapons-usable materials that are becoming available. A greater proportion of the safeguards effort will need to be devoted to surveillance techniques to compensate for the inherent measurement uncertainties in material accountancy that are involved when large quantities are involved.

Accordingly, we recommend that the U.S.:

- . Sponsor together with the IAEA, demonstrations in this country to design new techniques to optimize the effective application of safeguards to sensitive facilities.
- . Offer one or two of ERDA's national laboratories to serve as "sister" institutions to support the IAEA technical Secretariat.
- . Promptly explore whether more effective IAEA procedures and rights for surveillance during construction and shutdown periods are technically warranted and are negotiable.
- . Exercise leadership in augmenting scarce IAEA resources for needed staff and operating budget. In this regard, we recommend that you direct a reexamination of how the U.S. can better contribute to the IAEA, including possible ways to augment the staff of inspectors.

Your endorsement of this idea would be consistent with past U.S. policy. However, ways to augment IAEA funding staffing will require careful study.

3. Physical Security. International (IAEA) safeguards rely on material accounting, surveillance and inspection, and containment techniques, all designed to detect diversion of nuclear material from authorized use. Physical security measures, designed to protect sensitive materials, are the

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responsibility of each nation's domestic authorities. Current trends of international violence and terrorism clearly demonstrate the urgency of effective physical controls.

The U.S. is the world leader in promoting effective physical protection of civil nuclear materials and equipment. In this regard, the principal nuclear suppliers have recently agreed, as a matter of national export policy, to require of customers adequate physical security. An international convention on physical protection has been discussed with interested countries with only lukewarm response.

On the whole, we believe this is an area where progress is being made. We should continue to press for upgrading standards worldwide. Accordingly, your advisers recommend that the U.S.:

- . Pursue the international convention by taking diligent soundings about the real prospects of broad international support.
- . Continue to promote broad collaboration in the area. For example, seek to develop a close association on physical security measures with the European Community, recognizing their potential for framing common nuclear standards.

Your approval of this activity would represent an endorsement of an ongoing, noncontroversial activity.

#### Information on Diversions

Our current capability is unsatisfactory for: (1) detecting diversions or attempted diversions, and (2) tracking the worldwide buildup of nuclear capabilities. We recommend two actions to correct these situations.

#### Timely Detection

IAEA safeguards are frequently criticized as not susceptible to timely reporting of possible violations. This is a potentially serious problem, as weapons-grade material like separated plutonium can be fashioned rapidly (weeks to months) into an explosive.

We recommend that all new U.S. supply commitments should ensure that we receive timely information on effectiveness of

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IAEA safeguards in a cooperating state. In future agreements, we should insist on being continually satisfied regarding effectiveness of IAEA safeguards, particularly on sensitive facilities, and we should shape our veto rights to achieve this objective. In some such cases, the U.S. should supplement IAEA inspectors with a U.S. presence should that prove essential to assure proper safeguarding.

#### Proliferation Intelligence

U.S. tracking of worldwide stocks of plutonium and highly-enriched uranium can be significantly improved. We commend the recent study of this subject by the Defense Department (Deputy Secretary Ellsworth) and urge its recommendations be promptly evaluated and quickly implemented. "User" agencies should be directly involved.

#### Incentives

Offering incentives is essential to move other nations to our view of reprocessing and to accept our export restraints. We currently lack leverage in world nuclear markets, especially due to lack of uranium enrichment capacity. Consequently, if you approve an option to contain the spread of reprocessing (Major Policy Options 1 or 2), we recommend improving incentives with nuclear consumer and supplier nations and with all nations in nonnuclear energy cooperation.

#### Consumer Incentives

As incentives for nuclear consumer nations to forego development of national reprocessing, we recommend that the U.S.:

- . Offer to nations (those outside Europe and Japan and preferably NPT parties) that accept our tougher reprocessing conditions, an opportunity for the U.S. to acquire their spent fuel, with compensation in cash or fresh, low-enriched fuel. The amount of compensation would be determined at the time the other nation was ready to reprocess its fuel, and would be based on terms that would avoid economic disadvantages to the consumer. (This arrangement would be analogous to the formulation recently discussed in Iran by Secretary Kissinger. However, it could be viewed by some countries as a constraint rather than an inducement.)

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- . Offer to these nations assistance in arranging for spent fuel storage in the U.S. or overseas, in anticipation of the IAEA storage regime.
- . Extend an offer for immediate fuel exchange at a negotiated price to nations in highly sensitive areas where even the presence of spent fuel appears worrisome (India, for example).
- . Assure, for nations accepting our restraints policy, enrichment supply under USG guarantee, subject to capacity limits, covering both regular enrichment services and additional services required to implement our fuel exchange agreements. This assurance would extend to private sector enrichment plants, in which these nations would be invited to invest.
- . Guarantee provision of enrichment services to implement our fuel exchange agreements.

Supplier Incentives

To help induce cooperation of other suppliers and Japan, we should:

- . Approach the FRG and France to offer tie-in agreements whereby we would guarantee enrichment services at non-discriminatory prices to their reactor customers and/or offer separative work contract opportunities to European enrichers in connection with U.S. reactor sales if they move significantly closer to our general constraints policy on reprocessing. This guarantee could be subject to capacity limits.
- . If interest is expressed in such arrangements, invite suppliers' (as well as consumers') investment in U.S. private sector plants in return for assured supply for tie-in sales.
- . Seek binational arrangements with Japan leading to jointly sponsored reprocessing of their fuel, perhaps in a regional plant, and encourage cooperation among European suppliers to pursue the United Reprocessors venture (France, Germany, and the U.K.) as a model for multilateral plants.

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We should also communicate in a general way publicly the need to develop an arrangement with other suppliers for neutralizing competition for fuel cycle services and facilities. This idea requires further study before presenting it formally to other countries, and such study should proceed immediately. Meanwhile, exploratory talks with other suppliers could begin.

Finally, your endorsement of a strategy favoring the constrained spread of reprocessing would also entail your seeking other suppliers' agreement to a two-year moratorium on the transfer of sensitive technology. A moratorium, if agreed to, would help cool off the existing concerns and would buy time to undertake the diplomatic initiatives we otherwise suggest. All of your advisers favor pursuing the moratorium idea. If we decide to publicly announce endorsement of a moratorium we would be obliged to hold advance consultations with the other suppliers, some of whom strongly favor pursuing this matter on a confidential basis.

#### Enrichment Capacity

Absence of uranium enrichment capacity in the U.S. calls into question the foregoing initiatives. To support a policy of incentives for nuclear consumers and suppliers, we need new enrichment capacity. This is a fundamental precondition of really credible fuel exchange guarantees. The more attractive and reliable we make our enriched uranium supply, in concert with other suppliers, the more likely our success in containing national reprocessing.

Accordingly, depending on the status of the NFAA at the time of a Presidential statement on nonproliferation, we recommend that you:

- . Call on the Congress to pass the NFAA in view of its central importance to your nonproliferation policy.
- . Restate the earlier Presidential pledge that the USG will honor any enrichment contract made in the U.S., public or private.
- . Commit publicly to construction of added capacity at ERDA's Portsmouth, Ohio, plant.

#### Nonnuclear Technology Incentives

The U.S. has engaged in an aggressive domestic program

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to develop new energy supplies from nonnuclear sources. In principle, U.S. results are always available for sharing with others. We recommend that collaboration on nonnuclear technologies be focused on nations that are prepared to accept our policy on nuclear export restraints.

CEQ has recommended that you initiate an international initiative of collaboration on energy conservation to reduce demand, particularly for nuclear (fission) power, while accelerating development of solar and fusion energy.

For purposes of this review, we believe that benefits could also be achieved near-term by providing selected countries with: (a) assistance in energy systems analysis and assessment of energy development strategies; and (b) technological help in developing indigenous fossil energy resources.

We recommend that you assign to ERDA and the Department of State responsibility for a joint, detailed review of the cooperation possibilities in these areas, emphasizing countries of proliferation concern, with a report of action recommendations to you in ninety days.

#### Alternative Technologies

If you accept Major Policy Option 3--oppose the use of reprocessing--your program for recovering the residual energy content of spent fuel would be directed toward research into alternate technical approaches not involving the separation of plutonium. (And even if reprocessing is pursued, many of these alternate technology programs would be initiated.)

Internationally, participants in our regime of foregoing reprocessing could obtain equitable access when these technologies are developed, and could obtain spent fuel storage under international auspices in the interim. If the alternative technology program were unsuccessful, the U.S. could support a throwaway cycle or reexamine the desirability of reprocessing.

The elements of the approach would be:

- . A U.S. program initiated immediately, of construction of spent fuel storage capacity, probably initially at Savannah River. The U.S. would make the storage

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capacity available at no charge. The fuel owner would pay for transportation.

- . A vigorous program of examining alternative technologies would be launched immediately. The U.S. would invite cooperation of other states, both suppliers and consumers, in this assessment.
- . The U.S. would announce as U.S. policy that when any technical approach makes it feasible to extract economic benefits from spent fuel compatible with nonproliferation objectives, there would be equitable access to such benefits for any fuel deposited in IAEA repositories or in the U.S.

This approach also would share the following common features of other Major Policy Options: (a) a U.S. option program to acquire spent fuel from selected countries as an alternate to national reprocessing; (b) active U.S. assistance in promoting a spent fuel storage regime; (c) a program of guaranteed enrichment supply for nations agreeing to our restraints; (d) U.S. efforts to coordinate its fuel cycle programs with other suppliers in the interest of promoting nonproliferation objectives.

#### Nuclear Waste Management

The Nuclear Policy Review examined the waste management program now underway, and, in general, found it to be soundly conceived.

- . The target date of 1985 for initial operation of a disposal facility is a desirable objective, and it is attainable if given a high priority. The proposed facility supports the major policy options, including the throwaway option and the retention of foreign waste if that proves necessary.
- . It is essential that the program produce by 1978 an initial demonstration of waste solidification, canister design, repository design, and the availability of stable geologic formations. NRC criteria for assessing a repository site should be available at the same time.

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- . The initial repository should be licensed by NRC.

The principal actions required are to ensure that all agencies act to meet the 1978 and 1985 dates. To this end, the Administrator of EPA has agreed to propose "generally applicable standards" for permanent storage of high-level waste by December, 1977. In addition, we recommend that:

1. The Director of OMB designate a project coordinator for the entire effort, and that the Federal Coordinating Committee for Science, Engineering and Technology be designated to provide the coordinator with independent technical advice.

2. The Administrator of ERDA be directed to publish a final Generic Environmental Impact Statement on the program by late 1977.



UNITED STATES ARMS CONTROL AND DISARMAMENT AGENCY  
WASHINGTON

September 3, 1976

OFFICE OF  
THE DIRECTOR

MEMORANDUM TO THE PRESIDENT

SUBJECT: . ACDA Position on Nuclear Policy Review

I strongly recommend the domestic and international  
Option 2:

- defer and discourage reprocessing;
- provide for storage of spent fuel; and
- vigorously pursue alternative technologies  
for recovering the energy value in such  
fuel without separating the plutonium.

You are well aware of the intense public and  
Congressional concern over reprocessing. A major  
thrust of your Administration's nonproliferation  
efforts has been to head off reprocessing in countries  
such as Korea, Pakistan, Israel, Egypt and the Republic  
of China.

This is because reprocessing reduces plutonium  
to a form highly vulnerable to theft or seizure and  
quickly usable in nuclear explosives, as we saw in  
India. The output of one commercial size reprocessing  
plant would furnish enough nuclear explosive material  
for several thousand atomic bombs per year. There  
is no reliable way to prevent plutonium from being  
captured by a government willing to violate its  
safeguards agreements, and then being converted into  
nuclear weapons in a time shorter than we could  
probably react.

In these circumstances, a decision now to assist  
and accelerate reprocessing in the United States by

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By W/HM NLF Date 11/3/00

a \$1/2 billion Federal investment to permit operation of a reprocessing plant constructed by Allied Chemical, Gulf, and Royal Dutch Shell, could have obvious domestic political repercussions. This would be especially true since the current public proceedings by the Nuclear Regulatory Commission on whether or not to permit the use of reprocessed plutonium in US reactors will not be concluded for at least another year.

More importantly, such a decision would seriously undercut our efforts to head off reprocessing in other countries, who look more to what we do than what we say. The option I am recommending would avoid this risk and directly support our international efforts, including our call on the London Suppliers' Group to examine alternatives to national reprocessing.

Such alternative technologies exist, but require further development and demonstration. While we are working on them, we can well afford to postpone the recovery of the potential energy value in spent reactor fuel. The report makes it clear that the economic benefits to reprocessing -- if any -- are small and uncertain. There is no question that we have sufficient uranium to fuel all US reactors likely to be built in the next 15-20 years. By providing spent fuel storage facilities (which are considerably less costly than reprocessing facilities) we would both be setting an example for other countries and relieving our own utilities of their most immediate problem -- the need to remove the accumulated spent fuel from their reactor sites.

You, Mr. President, should be the first to establish the principle of proliferation safety -- that commercial technologies can and must avoid access to weapons-usable material. You can direct our superior technological capabilities to this end and remove a major security risk from the nuclear energy picture. And, with the force of a powerful American example, you can lead the world in the same direction.

Comments on other issues are attached.

*Fred C. Ikle*

Fred C. Ikle

ACDA Position on Other Issues and Recommendations  
in Nuclear Policy Review

In keeping with our recommendations about reprocessing, we attach very high priority to the recommendation that you support, through approaches at the highest level of other supplier governments, our efforts to secure a two-year moratorium by such suppliers on transfers of sensitive technology.

The other central issue in the Review is how we should tighten our nuclear export controls, which is also the principal subject of the legislative proposals in this field currently being discussed with Congress. We consider the restraints proposed on page 13 of the Review as desirable, except that we oppose any formulation that would accelerate reprocessing or provide reprocessing services involving the return of separated plutonium or mixed oxide fuel to third countries, since these products are too readily convertible to use in nuclear weapons. We endorse the recommendations on sanctions, and generally prefer the "strong initiative on retroactivity" described at pages 17-18 to unilateral insistence on retroactivity, but believe judicious use of licensing leverage can also further our objectives.

With respect to the incentives discussed at page 22, we disagree with the recommendations which would encourage cooperation in establishing early additional reprocessing facilities in Europe or Japan.

We are in general accord with the recommendations on Material Storage (although the stress should be on spent fuel storage, and you might wish to study further the wisdom and scope of the suggested U.S. voluntary offer), Safeguards and Physical Security, Sanctions, Waste Management, Other Initiatives, and Next Steps. With respect to the organizational recommendation on organization of Executive Branch supervision of nuclear policy matters, we recognize that other arrangements would also be workable, so long as they gave an appropriate voice to this Agency on matters affecting our non-proliferation efforts. We believe the question of whether the UN General Assembly would be a good forum for announcing your international decisions would be highly dependent upon

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By W.H.M. NLF Date 11/3/00

the nature of your decisions and the extent to which they may appear coercive and discriminatory rather than cooperative and self-restraining.

Finally, while the report rightly focusses on the particularly pressing problems of reprocessing and plutonium, nuclear weapons can also be made with highly enriched uranium. Since most power reactors use only slightly enriched uranium (2-3%), the related nonproliferation problem is primarily one of controlling the spread of enrichment facilities and technology (which could also produce highly enriched uranium), and of meeting foreign fuel needs through enrichment services, involving low enrichment. For this purpose, we well as for providing fresh fuel as an alternative to reprocessing and avoiding waste of our uranium resources, the prompt expansion of uranium enrichment capacity in the United States is indispensable, and we endorse the recommendations on this subject on page 23. We also recommend a separate review of our policy on the export of highly enriched uranium itself, and intensified diplomatic efforts to prevent the spread of enrichment technology.

We have not commented on the annex to the report, which we have not seen in the final form.

EXECUTIVE OFFICE OF THE PRESIDENT  
COUNCIL ON ENVIRONMENTAL QUALITY  
722 JACKSON PLACE, N. W.  
WASHINGTON, D. C. 20005

September 3, 1976

Dear Mr. President:

This letter provides the comments of the Council on Environmental Quality on the report of the Nuclear Policy Review Group. The Council has participated actively in this effort and we have been impressed with the leadership that Bob Fri has provided.

We believe that you should view nuclear policy in broad perspective. U.S. nuclear policy (both domestic and international) is part of a broader U.S. policy to provide adequate supplies of safe, reliable energy at reasonable costs. It is also part of a broader arms control and disarmament policy. Moreover, these policies and our overall environmental quality objectives should be consistent. We believe that it is important for you to view the decisions before you in this context, particularly the decision on whether or not to go ahead with the reprocessing of spent fuel from nuclear reactors.

Although countries with nuclear weapons ambitions, but without such capability, undoubtedly see reprocessing as a direct route to achieving their goal, the driving force behind reprocessing is the desire by the United States and other countries for a reliable, economical supply of energy. Viewed in this light - as a technology whose value rests primarily on its ability or inability to provide a safe, reliable and economic fuel supply - reprocessing can be compared even-handedly with other energy development strategies, both nuclear and non-nuclear.

From an energy supply standpoint, the U.S. does not need to commit to reprocessing now. The economics of reprocessing appear to be questionable at best. From a resource perspective, our uranium supplies are more than ample through the end of this century, and likely beyond then. Moreover, reprocessing brings safeguards problems for which effective solutions have not been demonstrated.

In contrast, an opportunity exists to take the initiative and aggressively explore alternative routes to satisfying our long term energy needs. We recommend a two pronged approach.

First, the United States should explore alternative technologies for recycling spent reactor fuel. Some of these technologies appear promising and could permit recovery of the residual energy in spent fuel without separating weapons-grade plutonium. This would have the effect of opening up new energy development options without losing ground on the non-proliferation front, and without closing the door on eventual use of existing technologies.

Second, we recommend that you initiate a U.S. effort to organize a major world-wide commitment to energy conservation, solar, and nuclear fusion technologies. These non-fission alternatives are safer, environmentally superior and, in the final analysis, may be more reliable and economical than those which rely on reprocessing. Such a commitment could enable the world to meet long term global energy needs without permanent reliance on fission power. They offer the only long term possibility of reducing the connection between energy supply and nuclear weapons proliferation.

With respect to non-proliferation, we agree with the concern that any U.S. government decision to support reprocessing - as a demonstration or as a commercial operation - signals to the world a U.S. belief that reprocessing is an acceptable technology. We share the concern that such a message would greatly damage U.S. non-proliferation efforts. We believe that such a decision is unnecessary and unwise at this time.

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Reprocessing is unnecessary now because there is little energy related justification for it.

We believe it is unwise because we have been persuaded that the proliferation risks of such a commitment are extremely grave. The world reaction to India's detonation of a simple device, made possible by reprocessed plutonium, testifies to the great fear that this technology generates. The proliferation of nuclear weapons as armaments and as terrorist tools is, in our judgment, a certain concomitant to the proliferation of nuclear fuel reprocessing.

We also believe that alternatives to present fission technologies have not been adequately evaluated to determine if they could meet our energy needs and present fewer risks to our non-proliferation objectives. We believe this is essential before a U.S. commitment to reprocessing is made.

We strongly urge that you aggressively pursue the development of technological alternatives to reprocessing, and that you defer any U.S. commitment to reprocessing. We also strongly support the various international initiatives on improving controls on nuclear facilities and materials, and the domestic initiatives on tightening U.S. export conditions, recommended in the Task Force Report. We believe these latter initiatives should be pursued regardless of your decision on reprocessing.

We believe that this course presents the opportunity for the U.S. to establish itself as a bold leader in developing safe and reliable energy technologies. Equally important, we can take this step without losing the chance to return to existing technologies if new ones do not prove feasible. Finally, we gain time and credibility internationally to move forcefully to stem the spread of national reprocessing facilities.

We have the time we need to take this bold and important step now. But we will not have it for much longer. We believe that the benefits could be enormous, while the risks are modest.

Respectfully,

A handwritten signature in cursive script that reads "Russ Peterson". The signature is written in dark ink and is positioned above the typed name.

Russell W. Peterson  
Chairman

The President  
The White House  
Washington, D.C. 20500



~~CONFIDENTIAL~~

September 3, 1976

MEMORANDUM FOR THE PRESIDENT

SUBJECT: Nuclear Policy Review

We have reviewed the Nuclear Policy Review Decision Memorandum prepared by the Task Force headed by Bob Fri and believe it sets out sufficient background and analysis on which you can make a decision on this important subject. We also believe the realistic alternatives have been adequately posed. I believe the Task Force, and Bob Fri in particular, have done an outstanding job.

Before giving you our position on the various recommendations and alternatives posed in the Memorandum, I would like to note my personal belief that there is no more important issue facing the nation and the world than the issue of proliferation of nuclear weapons grade materials without adequate safeguards. In this regard, I would have liked to have seen a bolder, more sweeping plan than that presented to you.

On reflection, however, it is clear that our leverage is not unlimited. Other industrialized countries either have or are gaining the necessary capability to build their own enrichment or reprocessing plants and export nuclear fuel services to others. Some emerging developing countries may also soon have such a capability. At the same time, it will require a major act of political will on our part to build the necessary nuclear fuel services capacity which will provide credibility to the assurances of adequate fuel services we would offer to those who are either parties to NPT, adopt adequate safeguards or agree to impose restraints similar to ours. If you decide to proceed therefore, your announcement will have to give a sense of urgency to the Congress as well as the international community. And I believe it will be this sense of urgency, of first steps soundly taken, that will give impetus to the perforce limited initiatives set out.

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*WDM 11/3/00*

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SUBJECT TO GENERAL DECLASSIFICATION  
SCHEDULE OF EXECUTIVE ORDER 11652  
AUTOMATICALLY DECLASSIFIED ON DEC. 31 1978



Having noted these caveats, I believe, nevertheless, that you should proceed with the maximum possible force of leadership. In this regard, I believe it is at the United Nations General Assembly that the initiative should be launched. We should be able to attract adequate press and media coverage, and any adverse international comments would probably assist you domestically.

There follow below our positions on the recommendations and alternatives set out in the paper:

A. Storage, Safeguards and Physical Security

We agree with the recommendations on storage, safeguards and physical security. It makes sense to provide for IAEA custody of excess plutonium (including US "excess" civil designated spent fuel and plutonium), to strengthen the IAEA safeguard system, and to attempt to achieve treaty agreement on international guidelines for physical security as well as rapid measures to recover lost or stolen materials.

B. Restraints (U.S. Conditions on Nuclear Exports under New Bilateral Agreements or Amendments to Existing Agreements for Nuclear Cooperation)

We agree with the recommendations on restraints. It is important in this respect to come up with export restraints which have some realistic possibility of being effective in connection with the end objective of reducing proliferation. Effectiveness in turn depends on the willingness of other supplier nations to adopt similar restraints. At the same time, there must be some flexibility. We believe that the recommendation, which would be based on the recently agreed Supplier Guidelines, strikes the necessary balance.

C. Sanctions

We agree with the initiatives to (1) seek a supplier agreement to press for an IAEA decision to direct curtailment or suspension of nuclear assistance to a state violating IAEA safeguards, (2) seek a multi-lateral agreement to suspend or terminate cooperation with any additional non-nuclear weapon state (NNWS) hereafter acquiring or testing a nuclear explosive

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device, and (3) announce that violations of safeguards agreements would warrant immediate reexamination of our overall relations with the violating state as well as concerted international action to consider collective sanctions. We believe this is as far as we can go without disrupting our other international interests.

D. Application of Restraints to Existing Agreements on Nuclear Cooperation

We believe that, of the two options proposed, the first, unilateral imposition of new export restraints on countries with which we already have agreements of nuclear cooperation, would have serious repercussions on our foreign relations. It would also penalize a number of supplier nations, whose cooperation we need if we are to be successful in any non-proliferation policy, and might cause a massive shift of nuclear trade elsewhere. We therefore support a strong initiative which would be based primarily on the currently agreed Supplier Guidelines but with Presidential authority to override a negative NRC finding in exceptional cases. (Option 2). The approach would also include a strong diplomatic initiative aimed at upgrading existing agreements consonant with the Supplier Guidelines. While the approach will have to be sold to the Congress, we believe we can be successful if we work at it. At the same time, Congressional confidence in this approach will depend on their perception of our sincerity in undertaking a major diplomatic initiative to negotiate the necessary amendments to existing agreements. Your direction to the State Department and ERDA in this regard must, therefore, be unequivocal.

E. International and Domestic Options on Reprocessing

We believe the first set of options to contain the spread of national reprocessing capability and provide USG assistance to demonstrating the commercial feasibility of reprocessing makes more sense economically and technologically and is more realistic from an international point of view. First, technologically, we believe that alternative technologies are unlikely to prove feasible between now and the year 2000 and that

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an accelerated effort to develop them will be unlikely materially to change this assessment. Secondly, we believe that a U.S. decision not to go forward with domestic reprocessing will have only marginal effect on restraining other supplier nations with reprocessing capability. Thirdly, we have a better chance of negotiating internationally appropriate restraints if we take the lead in developing technology which is likely to prove feasible in closing the nuclear fuel cycle and then offer internationally to provide nuclear fuel services to countries which adopt our restraint policy. Fourthly, our ability to develop fully a nuclear option using known domestic uranium resources will depend in large part on closing the fuel cycle; if alternate technologies are unlikely to achieve this result between now and the year 2000, we will in essence create a major impediment to the development of U.S. nuclear electric generating capacity. We do not believe the argument to the contrary that additional U.S. uranium resources will be discovered if the economics are right will materially alter this conclusion.

I should note, however, that, if our primary goal is non-proliferation, the fuel assurance portion (whether through reprocessing or enrichment services) will be all important. Why should a consumer nation at the behest of the U.S. agree not to acquire its own nuclear fuel capability (whether through enrichment or reprocessing) if the U.S. or another supplier country does not provide fuel services assurances?

However, we should note that U.S. assurances will take considerable resources. The Memorandum only offers fuel services to countries other than those with which we have fuel exchange agreements to the extent of capacity. Our present enrichment capacity is inadequate to make assurances to other countries credible. The recommendations on the Nuclear Fuel Assurances Act are therefore critical.

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In sum, we believe we must at a minimum go forward with Barnwell and design of a 3000 MTU plant in conjunction with the contained spread international option if we are to make any progress at all in achieving the following two objectives: (1) reduction of proliferation, and (2) maximum development of the U.S. nuclear energy alternative in accordance with your energy policy.

Finally, it seems to me that if you decide to proceed with this set of options, we should offer the Barnwell demonstration as an international venture, perhaps under the aegis of IAEA. Such a proposal would have the benefit of demonstrating to the world our commitment to develop internationally technological solutions to maximize the energy content of spent nuclear fuel with appropriate proliferation and environmental safeguards.

F. Waste Management

We agree with continuing the present waste management program coordinated by OMB.

G. Other Initiatives

It makes sense to continue to expand our non-nuclear energy assistance to other nations and improve our own assurance of safeguards effectiveness.

H. Nuclear Policy Organization

We believe a major thrust of the initiative involves energy policy as well as security policy. We therefore suggest the reporting mechanism for the Nuclear Policy Council be through the Energy Resources Council and the National Security Council rather than through the Domestic Council and the National Security Council. The ERC meets as a body more often and has the appropriate membership for this purpose including relevant members of the Domestic Council. The ERC also has under its aegis a Nuclear Subcommittee which is charged with developing the all important domestic nuclear decision schedule which must support any initiative you take in this area. This type of organization would be more consistent with the procedures already in place in connection with other energy policy matters.

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I. Next Steps

We agree with the next steps outlined in the Memorandum.

I believe the above outlined initiative would be very much in the interests of the country and the world. To give it credence will require your personal leadership. I very much urge your agreement to proceed.

If you decide to proceed, we shall of course have to pay particular attention to how the initiative is coordinated with the various Congressional bills, one of which I understand may come to the Floor of the Senate as early as September 16.



Elliot L. Richardson

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UNITED STATES  
ENERGY RESEARCH AND DEVELOPMENT ADMINISTRATION  
WASHINGTON, D.C. 20545

SEP 7 1976

The President  
The White House

Dear Mr. President:

As I stated in my letter to you of June 9, 1976, I believe there is a need for the United States to undertake major initiatives to reduce the risk of proliferation of nuclear explosive devices and to meet our domestic energy needs by resolving uncertainties that now pose impediments to closing the nuclear fuel cycle. The nuclear policy review which Bob Fri's Task Force has undertaken at your direction provides recommendations for your decisions on these important policy issues.

As discussed in more detail below and in the enclosure, we generally support the Task Force recommendations and urge their adoption.

I believe that your decision on these matters should be driven by two principal objectives:

- o To assure that we are able to exert maximum international influence toward the nonproliferation of nuclear weapons and safeguarding of nuclear materials, and
- o To assure the viability and continued growth of domestic nuclear power.

We can accomplish our nonproliferation objectives only if we are in a position to influence other nations, particularly the supplier nations. Our leverage in these matters depends on our credibility as a nuclear supplier, which in turn requires that we take action now to:

- o Increase our uranium enrichment capacity, as you have proposed in the Nuclear Fuel Assurance Act;
- o Establish a reprocessing capability; and
- o Implement an effective and responsible waste management effort.



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WHM 11/3/00

Positive action in these areas is also compatible with our domestic energy needs and objectives. It would restore the confidence of the energy industry and the general public in the viability and acceptability of the nuclear option. This is essential since nuclear energy, together with coal, must meet the majority of U.S. electrical energy needs for the remainder of this century.

The most important decision is whether to proceed with a U.S. reprocessing initiative now, or defer reprocessing until a later date. We recommend that you adopt Option 1 of the Task Force, which would enable the government to take an active role in assisting industry to develop and demonstrate reprocessing. In supporting this recommendation, however, we would point out that Federal assistance beyond that contemplated by the Task Force may be required for success.

The key to achieving our international nonproliferation objectives is the demonstrated capability of the U.S. to provide complete fuel cycle services to discourage non-supplier nations from developing their own reprocessing plants. It is essential also to obtain cooperation of the other nuclear supplier nations in adopting similar nonproliferation policies. As you know, a number of other countries are committed to reprocessing; a decision to defer reprocessing in the U.S. would cripple our efforts to influence these countries in view of their continued commitment to nuclear power as an essential ingredient of their own efforts toward energy security.

Reprocessing could extend by as much as 50 percent the amount of nuclear capacity which can be supported by a given resource base through recycle of valuable uranium and plutonium. Reprocessing is also needed to provide the initial fuel for the breeder reactor, a near commercial reality (early 1980's) in several European countries. Without reprocessing, the breeder must be discarded as an energy option.

In the recommendations on both international and domestic reprocessing, an option is proposed that the U.S. could forego reprocessing in lieu of developing alternative technologies. ERDA is strongly of the opinion that there are no viable alternative technologies to reprocessing at this time.

In summary, we believe that proceeding with reprocessing (Option 1) is the minimum approach which together with an expanded enrichment capacity, would permit the U.S. to exercise effective influence in the international sphere, and to meet its domestic needs.

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The President

- 3 -

Our detailed comments on the specific Task Force recommendations are presented in the enclosure to this letter. There are two matters of concern to us in the international nuclear policy area that deserve highlighting. First, we believe that the role of IAEA should be much more clearly articulated before any U.S. commitment is made to place U.S. plutonium under its control. Second, we believe that efforts to improve the quality and effectiveness of the international safeguards system must go even further than those recommended by the Task Force.

Respectfully yours,

A handwritten signature in black ink, appearing to read "Robert C. Seamans, Jr.", with a stylized flourish at the end.

Robert C. Seamans, Jr.  
Administrator

Enclosure:  
As stated

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~~CONFIDENTIAL~~DETAILED COMMENTS ON SPECIFIC RECOMMENDATIONS

ERDA comments on specific recommendations of the Task Force are presented below. Headings and titles follow those of the Task Force Report.

International Nuclear PolicyA. Materials Storage, Safeguards and Physical Security

ERDA agrees with the Task Force recommendation for an IAEA storage program for sensitive materials, further development of physical security systems, and significant re-enforcement of IAEA safeguards. However, we wish to emphasize strongly our conviction that the U.S. must initiate strenuous efforts to redirect the international safeguard system toward a higher level of quality and effectiveness in light of the accelerated growth of nuclear power worldwide and the implications for the spread of nuclear explosive devices.

B. Restraints and Sanctions

We agree with the Task Force recommendations on restraints and sanctions. We recognize that, to be meaningful, any sanctions policy must gain multinational support. On the other hand, we urge that your statement on sanctions be firm and explicit that a material violation of a safeguards agreement will call into question the entire range of our associations with the violating state (rather than simply our nuclear supply relationships).

C. Existing Agreements and Export Licensing

We do not believe that unilateral insistence on retroactive applications of restraints as a condition of supply is a viable approach. While we recognize that such mandatory retroactivity has a certain appeal to many here at home, we feel that it would not preserve the necessary flexibility required to achieve our non-proliferation goals. We therefore recommend adoption of a strong (but not mandatory) initiative on retroactivity. It should be emphasized, however, that success in renegotiating existing agreements will be critically dependent on the nature and scope of the supply incentives we are prepared to offer.

D. Alternatives to National Reprocessing

The Task Force presents two options on reprocessing: (1) contain the spread of national reprocessing, or (2) develop alternatives to reprocessing. ERDA's strong recommendation here is for Option 1--to contain the spread of reprocessing--as the most effective action we can take to ensure that proliferation of nuclear materials will be kept to a minimum.

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In implementing Option 1, we should be prepared to aggressively pursue a wide range of activities to provide real alternatives to countries who would otherwise wish to independently undertake the development of their own national reprocessing centers. These activities should include cooperative ventures to establish fuel centers serving regional needs with U.S. involvement to ensure appropriate operation of such centers; international cooperation in pursuing solutions to the management and disposal of nuclear wastes; assistance in development of indigenous uranium supplies in other countries; and assurances of availability from the U.S. of complete fuel cycle services, including enrichment.

Our major concern with Option 2--develop alternatives to national reprocessing--is that it fails to recognize the ongoing reprocessing needs and plans of other nuclear-oriented nations. If the U.S. defers reprocessing, it will only serve to weaken our bargaining strength in obtaining effective international controls on proliferation.

### The Domestic Fuel Cycle

#### A. Domestic Reprocessing

The Task Force identified two options for closing the domestic nuclear fuel cycle: (1) assist industry to gain experience with reprocessing, or (2) develop alternative technologies. ERDA strongly endorses Option 1 as a vital first step in developing and demonstrating the technological, economic, safeguards, and licensing bases for fuel reprocessing and recycle.

ERDA favors Option 1 in that it:

- (1) Provides the U.S. with greater credibility as a supplier in the international nuclear market to support our role in limiting proliferation,
- (2) Provides the U.S. nuclear industry and the public with a positive basis for renewed confidence in nuclear power through the expeditious closing of the fuel cycle, and
- (3) Assures maximum utilization and benefits of the unused energy content of spent nuclear fuel, thus expanding this critical national resource.

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- (4) Provides a technology base and fuel supply for the breeder. (Without reprocessing, the breeder must be discarded as an energy option, since the breeder uses plutonium as its fuel).

We view Option 1 as representing the minimum program necessary to meet U.S. international objectives and domestic energy requirements. As described in the Task Force report, Option 1 involves completion of a privately-owned reprocessing demonstration facility (AGNS), with government-owned waste solidification and plutonium conversion facilities. Option 1 contemplates government support for only the design phase of a larger (3,000 ton) reprocessing plant. In our judgment, a more extensive commitment to a larger plant may ultimately prove necessary.

ERDA's technical judgment is that Option 2--develop alternative technologies--does not represent a viable option. At the present time, there is no evidence that available technological alternatives provide significant international safeguards improvement or practical potential for closing the fuel cycle. The only viable option to proceeding with reprocessing is to defer reprocessing and store spent fuel elements for possible reprocessing at some later time.

B. Waste Management

We concur in the recommendation of the Task Force that the domestic waste management program be given a high priority in support of closing the fuel cycle in a timely manner. We agree with the recommendation that a project coordinator be identified for the overall effort in order to obtain the appropriate interagency actions necessary to keep the program on schedule.

Other Initiatives

1. Assist Other Nations with Non-Nuclear and Advanced Energy Technologies

We concur with the Task Force recommendation that ERDA and State undertake a review of possibilities for cooperative development programs with other countries.

2. Improve U.S. Assurances of Safeguards Effectiveness

a. Proliferation Intelligence

ERDA concurs in the recommendations regarding better proliferation intelligence.

b. Timeliness

ERDA endorses the Task Force recommendation regarding the need for timely information on the effectiveness of IAEA safeguards.

3. Improve Organization of U.S. International and Domestic Nuclear Policy and Program

ERDA concurs with the need for improved oversight of international and domestic nuclear policy and programs, and we also believe that a nuclear policy council would be an organizational improvement. In our judgment, however, the lead agencies are State and ERDA. While ACDA obviously has an important mission in this area, our interpretation is that oversight of the implementation of your international initiatives would be primarily the responsibility of the Department of State. The structure and role of such a council deserve further consideration.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

SEP 3 1975

THE ADMINISTRATOR.

MEMORANDUM FOR THE PRESIDENT

SUBJECT: NUCLEAR POLICY REVIEW

The purpose of this memorandum is to present our views on the recommendations and alternative courses of action developed by the Nuclear Policy Review Group. I appreciated very much the opportunity to assist in the resolution of a problem of such vital importance to both the U.S. and international security. I would also like to congratulate Bob Fri and his staff for the amount of work accomplished in such a short time, and for their fairness in considering divergent views concerning this complex and controversial subject.

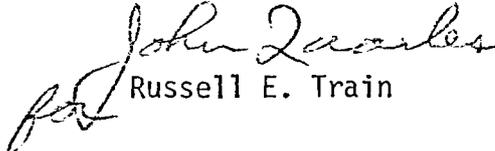
EPA supports those recommendations which would improve the organization of the International Atomic Energy Agency and its safeguards capability. We also concur with the recommendations to strengthen international restraints and sanctions against proliferation. These important initiatives should be undertaken immediately. We fully endorse the concept of strengthening our existing nuclear bilateral agreements, but we recognize the need for some flexibility in the application of retroactivity to these agreements (Option 2).

The Policy Group has submitted two reprocessing issues for your consideration. If you believe that you must make an immediate decision on reprocessing, we would recommend Option 2 for both issues, i.e., oppose spread of reprocessing internationally and discourage domestic reprocessing in favor of development of alternative technologies. However, we believe that it is premature for you to make either of these reprocessing decisions at this time. A decision now, could reduce U.S. bargaining power to foster international commitment to non-proliferation. We recommend, instead, that you pursue a two step process. First, you would take a major new initiative seeking world agreement on more effective safeguards and non-proliferation restraints. As an indication of U.S. credibility in this effort, and to belie any charge that commercial advantage was being sought, you would suspend further domestic reprocessing work indefinitely, thereby also indicating that this could be part of any international

agreement. The reactions of other countries to your initiatives would then provide you with more information for the second step of selecting the most feasible strategy for resolving the reprocessing issue. Our recommended approach would provide you with maximum flexibility to make subsequent decisions on reprocessing. Any decision to support either international or domestic reprocessing, at least without first improving the present inadequate safeguards systems, would be viewed with alarm by everyone concerned with proliferation of plutonium.

With respect to EPA's role in the nuclear policy area, we have significant responsibilities concerning environmental standards for the management of nuclear waste. As indicated on page 33 of Mr. Fri's paper, we have agreed to accelerate our schedule in order to publish Fundamental Criteria and draft Generally Applicable Standards by December 1977. This should enable us to promulgate final standards no later than June 1978 which is consistent with the schedules of the Nuclear Regulatory Commission and the Energy Research and Development Administration. We support the recommendation for the establishment of a Nuclear Policy Council headed by a senior Executive Officer. In fact, we recommend that this Council, rather than the Director of the Office of Management and Budget, designate the project manager for waste management in order to minimize fragmentation of future efforts.

In conclusion, we have appreciated very much the opportunity to assist the Nuclear Policy Review Group. We will be happy to provide whatever further assistance may be appropriate.

  
Russell E. Train



FEDERAL ENERGY ADMINISTRATION

WASHINGTON, D.C. 20461

SEP 3 1976

OFFICE OF THE ADMINISTRATOR

MEMORANDUM FOR THE PRESIDENT

FROM:

FRANK G. ZARB

*John A. Huel  
(acting for)*

SUBJECT:

DECISION PAPER ON NUCLEAR POLICY

Although the Nuclear Policy Review Group has done an admirable job under extremely tight deadlines, I have serious reservations concerning its recommendations and general direction. In addition, I do not believe the initiatives presented in the review group's decision paper provide an adequate basis for a major Presidential statement announcing new unilateral United States policy in this area. This position is based on several key shortcomings in the recommendations:

- The proposed policies are not sufficient to control proliferation.
- There is inadequate consideration of the tremendous difficulty of implementing the proposed initiatives worldwide.
- The paper gives inadequate attention to the effect of our international posture on domestic nuclear energy development.
- The cooperation of other supplier nations is critical, but as yet unknown. There is no assurance that the past marginal support of IAEA programs by other nations can be improved significantly as a result of these policy recommendations.

It is true that nuclear power must expand dramatically both at home and abroad as an energy resource. However, the possible diversion to weapons use of nuclear fuel materials must be prevented, both for national security reasons and to ensure further development of our domestic nuclear program. A continuation of current approaches will not be acceptable either to the public or to decision-makers.

I support the view that the Administration should take some action on this matter at this time. Nuclear power and nonproliferation are of such great importance to this nation and the rest of the world that I feel it imperative for us to take a more deliberative approach that will stand public scrutiny not only as a viable policy, but also one that can contain the problems of proliferation effectively.

FEA's positions on the specific issues presented in the paper are as follows:

Application of restraints policy to existing agreements.

- FEA prefers option 2 (strong initiative on retro-activity), but sees implementation problems with either option.

International position on reprocessing.

- FEA supports option 1 (control spread), however, implementation of this option depends critically upon the U. S. obtaining full cooperation from all supplier nations. Analysis to date has not determined whether or how U. S. can obtain such cooperation.

Domestic reprocessing.

- FEA strongly endorses option 1 (assist reprocessing), since this is a necessary step towards control of international reprocessing.

Waste management.

- FEA concurs with expedited implementation of planned program.

Other initiatives.

- FEA concurs with all recommendations, but urges that the proposed Nuclear Policy Council serve as a subgroup of the ERC.

Next steps.

- Direct the Nuclear Policy Council to develop concurrent proposals for strengthening international controls and obtaining the necessary full cooperation from all supplier nations. Such proposals would be viewed as a major initiative justifying a Presidential statement on these issues.



# United States Department of the Interior

OFFICE OF THE SECRETARY  
WASHINGTON, D.C. 20240

September 3, 1976

Memorandum

To: The President

From: Secretary of the Interior

Subject: Nuclear Policy Review Decision Memorandum

We have collaborated with your Nuclear Policy Review Group under the direction of Mr. Robert Fri and have reviewed the draft of the decision memorandum being prepared for you. In our judgment, this decision memorandum adequately sets out the issues and appropriate options for your decision.

Our specific responsibilities in the Department of the Interior, as they related to the issues and options presented in the decision memorandum, concern (1) adequacy of domestic uranium resources and reserves and (2) waste disposal.

Our knowledge of the present domestic uranium resource and reserve base indicates supply limits for a nuclear fuel capacity based exclusively on burner reactors. Also, our understanding of potential geologic hosts indicate that secure disposal of radioactive wastes, though attainable, will be a challenge to accomplish by 1985.

A decision in favor of reprocessing technology would augment uranium resource supply and would result in a lower level of radioactive waste for ultimate disposal. Further implications of your decision, which I appreciate are immense, are beyond the expertise and responsibilities of my Department.

*Tom Klappe*



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UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

September 3, 1976

The President  
The White House

Dear Mr. President:

The Nuclear Regulatory Commission welcomes the invitation to give you its views on the non-proliferation alternatives developed in the Nuclear Policy Review.

The Commission fully supports the fundamental conclusion of the report, that the United States should take strong new initiatives to inhibit the potential for the spread of nuclear weapons capability among the nations of the world. We believe that initiatives are particularly desirable to deal with risks associated with the disposition of plutonium in the international community. Increasing numbers and growing quantities of national plutonium stockpiles progressively increase the risk that some of this material might be diverted to nuclear explosives programs. There are no instant solutions to foreclose such an eventuality: the factors bearing on national nuclear programs throughout the world are diverse and complex; the limitations on this country's ability to compel action by others are real; and it should be frankly recognized that no "safeguards" regime provides absolute guarantees against diversion to weapons use, especially where separated plutonium is involved.

Positive steps are nevertheless feasible, as well as necessary. The Commission supports the review group's recommendations for strengthening the international safeguards regime and improving recipient-country physical security arrangements, along with appropriate provisions for U. S. and international sanctions. In addition, we support the recommendations in the study that an IAEA regime be established to place national stockpiles of civilian plutonium -- preferably in the form of spent fuel -- and highly enriched uranium under direct IAEA custody, although there is considerable work which needs to be done to bring such a system into being. While such a system would make a valuable contribution to our non-proliferation objectives, it cannot provide a complete answer to problems involved in protecting the material against sudden diversion.

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Mr. President

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Beyond these immediate measures, the Commission supports vigorous pursuit -- in cooperation with other supplier countries -- of additional restraints in international nuclear commerce. Those restraints could include international agreements to supply only to NPT parties (or, alternatively, countries that have placed all of their nuclear activities under IAEA safeguards), and to require that recipient countries participate in an IAEA storage regime for spent fuel and separated plutonium. Moreover, internationally agreed restraints should include a requirement that recipient nations not expand existing small-scale reprocessing or enrichment facilities, and that recipient nations not having such capabilities forego their development.

We believe that the basic goal of U.S. policy, as it relates to reprocessing in other countries, should be to inhibit the initiation of reprocessing programs in countries that do not yet have them. Furthermore, to the maximum extent possible, we should seek the integration of ongoing reprocessing programs in non-nuclear weapons states into an acceptable international regime that will be designed with the overriding objective of inhibiting the spread of nuclear explosives capability.

We believe that a key to achievement of United States non-proliferation objectives lies in a stable and predictable nuclear export policy. There is particular need in this regard for a revised legislative framework, which would establish sensible and clear criteria to guide NRC's export licensing determinations and recognize the role which the Executive Branch must properly play in the export licensing process. We are prepared to cooperate with the Executive Branch in an accelerated effort to formulate legislation to establish appropriate criteria to govern the licensing of nuclear exports. In our view, such legislation should, at the same time, permit latitude on the part of the President to authorize exports where the overriding national interest warrants. In framing the standards, it is important that they be both sound and workable, and that they not require repeated recourse to a Presidential national interest determination.

We believe that criteria modeled on the London supplier guidelines would provide a sound basis for U.S. export licensing legislation. Those guidelines also provide a framework for seeking, in conjunction with other suppliers, more stringent requirements for the future. While the provisions of existing agreements for cooperation should be taken into account in charting future United States policy, we would urge that United States policy also provide for reexamination of existing agreements.

Mr. President

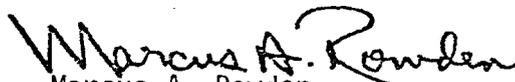
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The Commission supports the recommendation in the report to improve United States intelligence on nuclear proliferation. Current and complete information on worldwide nuclear developments is essential to informed export licensing judgments. As a necessary "user" of such information, the Commission requests the full cooperation of the Executive Branch in ensuring that needed information will be fully and regularly available to the Commission. The Commission also supports the recommendation that a Nuclear Policy Council be established to implement international and domestic nuclear policy initiatives. We recommend that the Commission be associated with this Council in a consultative role.

The analysis of domestic fuel cycle options in the review group's report addressed the major issue of domestic reprocessing. With respect to this issue, the Commission, as you know, is presently engaged in rule-making concerning wide-scale plutonium recycle in light water reactors. In addition, license applications for particular fuel cycle facilities are under review by our agency. Since we should not prejudge or appear to prejudge any matters pending before us, we have refrained from commenting on the recommendations in this portion of the report. We do note that our staff has recently published a detailed environmental study of a broad range of nuclear fuel recycle options, including prompt recycle, delayed recycle, and no recycle. An additional staff study of safeguards considerations will be published in the near future. We will be giving careful consideration to all options contained in the environmental statement.

The Commission appreciates having been given the opportunity to participate with the Nuclear Policy Review Group in addressing these issues, which we view as vital to the future security of this country and the international community.

Respectfully,

  
Marcus A. Rowden  
Chairman

EXECUTIVE OFFICE OF THE PRESIDENT  
OFFICE OF SCIENCE AND TECHNOLOGY POLICY

WASHINGTON, D.C. 20503

September 2, 1976

MEMORANDUM FOR

The President

SUBJECT: Nuclear Policy Review

I am in general agreement with the recommendations of your Nuclear Policy Review Group. They have done an excellent job of clarifying a very complex topic and identifying major decision points. The following paragraphs include my specific comments on major points in their report to you, in the order in which they were raised.

I fully endorse the recommendation to strengthen IAEA controls, safeguards and physical security as it applies to sensitive materials, while cautioning that this recommendation should be accompanied by additional attention to improvement of U.S. assurance of safeguards effectiveness as suggested under "Other Initiatives" in the Group's report.

With respect to the options presented on the retroactive application of restraints, it would appear that immediate and unilateral application would not serve our best interests and therefore I favor the strategy defined which calls for broader application of restraints through a three component approach. Since there have already been diplomatic efforts to gain acceptance of stronger restraints, there should be special attention given to an explanation of how your policy now represents a new (and more intensive) initiative in this area.

The Group's report includes two extensive discussions of options for reprocessing--both internationally and domestically--that require your decision. I support the general philosophy that reprocessing can not be effectively halted worldwide and that the option that calls for the U.S. to oppose reprocessing is not a realistic approach for the U.S. at this time. However, in the option defined as "Controlled Spread of Reprocessing" there is an important element of restraint that needs to be emphasized. In order to strengthen this option I believe the proposal for a two-year moratorium on transfer of sensitive technology should be accompanied by the additional point that work on alternative technologies will be pursued during this period in order to develop a better assessment of the applicability

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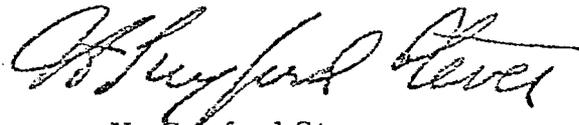
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of these technologies to any future reprocessing capabilities that may be established. If one of these technologies, despite some of the pessimistic views on their long-term viability, should prove to be attractive it could be pursued as a reprocessing option for non-nuclear weapons nations for which there would be some concern about the availability of sensitive materials. Thus, the incorporation of continued technology development in this option provides an additional buffer between the supplier and consumer nations that is supportive of our non-proliferation objectives.

I also support the domestic reprocessing option that includes government assistance to the development of limited reprocessing capacity in the U.S. but again with an effort to explore alternative technologies for use on the domestic scene as well as internationally. This would not include demonstration of the technology without further careful evaluation of the costs and expected returns from the options that are then available.

The waste management question, while not an issue in the non-proliferation area is nevertheless an important, and possibly decisive, issue of national concern and should also be accorded a high visibility in your messages on nuclear policy. I am in agreement with the assessment of the Nuclear Policy Review Group on waste management. In particular, as chairman of the Federal Coordinating Council for Science, Engineering and Technology I will be prepared to convene a group within the council to provide the necessary technical coordination and independent technical advice to the Project Manager as recommended in the Group's report. My suggestion is that you authorize a separate statement with respect to the organization of this group in order to give additional support to our determination that the necessary preparatory work be carried out to ensure a sound program of waste management that is sensitive to environmental and social concerns.

Finally, I should note my strong support for an expanded U.S. role in providing assistance to other nations in the development of other non-nuclear and advanced energy technologies including conservation. It is my recommendation that responsibility for review of cooperative possibilities in these areas and the development of possible new initiatives be assigned to this office in coordination with the Department of State and ERDA since this is a multiple agency matter and requires the close contact and coordination of the Executive Office if it is to be effectively implemented.



H. Guyford Stever  
Director

~~CONFIDENTIAL~~

THE SECRETARY OF STATE  
WASHINGTON

CONFIDENTIAL

September 6, 1976

EXDIS

MEMORANDUM FOR: THE PRESIDENT

From: Henry A. Kissinger *HK*

Subject: Nuclear Policy Review and  
Non-Proliferation Initiatives

I wish to take this opportunity not only to transmit my Department's response to the nuclear policy report, but also to offer my personal recommendations on the international aspects of your policy choices, their public presentation, and their diplomatic implementation. The State Department has participated actively in the formulation of the foreign policy elements of this study. I strongly concur in the review group's emphasis on the international basis for your nuclear policy, and I believe it of central importance both that we maintain consistency between their expression and execution and that we ensure broad multilateral support for the positions you take.

Attached are the specific State Department positions, which I fully endorse, on the proposals and options prepared by your interagency group. I concur in the report's recommendations for effective diplomatic consultations and action, in which we played an active role in developing and which we are prepared to undertake as soon as you give your approval. I need hardly emphasize that the more advance notice of proposed policies and statements we give our nuclear partners and allies, the more likely they will be to provide the support so necessary for the success of our non-proliferation policies. Therefore, this memorandum specifically seeks your early authorization for proposed diplomatic approaches, on the basis of which you could refine

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the international policy elements of your eventual public statement.

Non-Proliferation Objectives

In reviewing and developing further our nuclear policies, it is essential for the US to:

1. Ensure that our non-proliferation policies are cast in the framework of our overall foreign policy interests and close relationships with nuclear partners and allies.
2. Retain multilateral support for our non-proliferation policies, without which our political relationships will be set back and our non-proliferation efforts will be rendered ineffective.
3. Develop a policy which marries the restraints which we require with the incentives we can offer.
4. Prevent our non-proliferation efforts from being distorted by international commercial competition.
5. Make domestic decisions which will effectively support, rather than undercut, the primary objective of deterring nuclear proliferation.

Meeting Policy Objectives

This Administration can justly claim credit for the concerted and productive US efforts to develop strengthened and uniform nuclear safeguards and controls, through bilateral discussions with such key suppliers and consumers as France and Iran and multi-lateral consultations in the London meetings of major nuclear suppliers. The US has achieved significant non-proliferation results through high-level, confidential diplomacy, consistent with our broad foreign policy interests and relationships. At the same time, we have openly advocated strengthened nuclear safeguards and controls, in public statements and testimony to the Congress. But domestic pressures have substantially increased for fuller public expressions of what we have pursued privately and for visible improvement and strengthening of our policies.

It therefore continues to be necessary to make choices as to what balance is to be struck between diplomatic imperatives and public perceptions of a vigorous, coherent nuclear policy. We should make no apologies for past performance, but we should also not hesitate to stake out new territory.

The fundamental need to meet the non-proliferation objectives set out above leads, in my view, to the following policy choices and presentational requirements which are consistent with but often carry further the group's recommendations:

1. New conditions of nuclear supply, however desirable, should not be imposed by the US unilaterally, but rather pursued and adopted multilaterally. I must stress that a unilateral approach will damage us politically, with our allies and partners, and will lead the US to lose both commercially and in non-proliferation terms, as other less committed nations pre-empt the nuclear market. It should be recognized that if the suppliers, many of whom are also our allies, do not wish to follow a US initiative voluntarily, then we will either have to coerce them or jeopardize our non-proliferation policy. Clearly, we should not select a strategy which could so easily trap us in such a dilemma. At the same time, we should continue to make best diplomatic efforts to make non-proliferation gains, as I believe we have in our proposed nuclear agreements with Egypt and Israel and in our current negotiations with Iran. I believe that a strong public statement could be built around the crucial importance of multi-lateral consensus in nuclear safeguards and controls, the need for this country not to isolate itself and lose its non-proliferation influence, and your determination to pursue a responsible nuclear export policy while obtaining strong international support for our non-proliferation efforts.

2. It is essential to offer non-proliferation inducements in the areas of fuel buy-back and exchange, working in concert with other suppliers. Nuclear consumers, particularly those of proliferation concern who already enjoy less constrained agreements, will not voluntarily accept new restraints unless it is

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demonstrably in their interest to do so. I therefore strongly endorse the review group's recommendations for assured and equitable front-end fuel services in exchange for spent fuel, which is at the heart of our current negotiating approach with Iran.

3. Nuclear consumers will become less disposed to relying on the US if we arbitrarily impose more stringent conditions on nuclear agreements after their terms have been mutually agreed. We must therefore ensure that the NRC licensing procedures are responsive to national policy as executed by the President, within legislative requirements. Nuclear export licenses should not be used as a lever for obtaining new constraints from countries which live up to their obligations to us. NRC procedures should be perceived instead as a means of predictably implementing our policies of providing inducements, such as guaranteed reactor fuel supply, for countries accepting effective non-proliferation constraints.

4. We should move to engage other major nuclear suppliers in intensified and multilateral efforts to ensure that uranium enrichment and reprocessing facilities are located in supplier nations. To achieve this, it is necessary to prevent commercial competition from leading to proliferation of such sensitive nuclear facilities. While I support the review group's important recommendations for joint supplier fuel-service support for reactor sales, I recommend that you set a long-term framework for effective supplier coordination of fuel assurances, by calling for an examination by interested nations of an "international nuclear fuel bank" concept, as described in the second section of my Department's position paper, which would combine fuel storage and supply arrangements under international guarantees. With your approval, I will ask my deputies to work with Bob Fri in integrating this new element into your nuclear policy statement.

5. In this essential multilateral context, I conclude that a limited domestic reprocessing decision would serve our non-proliferation and foreign policy objectives. In so doing, however, it would be desirable to provide for appropriate foreign participation and essential to identify the proposed program as an

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"experiment," without prejudging its outcome. I can support the demonstration project associated with the "assist reprocessing option" presented by the review group, subject to what I believe are necessary presentational and policy precautions elaborated in the attached position paper, designed to reinforce our overriding non-proliferation interests.

6. I agree that you should seize the opportunity to press for rapid Congressional approval of the Nuclear Fuel Assurances Act, as a crucial means for expanding US enriched uranium capacity needed to provide credible non-proliferation inducements. In addition to providing greater US enriched uranium capacity to meet foreign needs in the near-term, we should redouble our efforts to develop more efficient and controllable forms of enrichment technology which could very substantially reduce the cost of enriched uranium and expand available supplies. This would permit us to shape an international system which could offer a combination of the "carrot and stick" required to bring about a regime which might dramatically slow the spread of national reprocessing in non-supplier states.

7. Nuclear policy message and management. Your review group has suggested the UNGA as a possible forum for your nuclear policy statement. I believe that the UNGA would be an inappropriate forum for you to discuss our new non-proliferation policies which will inevitably convey a tougher approach toward constraints. Even if tempered by offers of inducements, such a message would likely be viewed by the majority of your audience as restrictive, discriminatory, and targetted against the countries they represent. Nevertheless, if you choose to address the General Assembly on this subject, I would urge that you focus on the cooperative elements of these policies, such as the recommended international spent fuel and plutonium regime and our interest in exploring an international nuclear fuel bank concept. I believe that, in any event, you should reserve for a receptive US audience (or in a message to the Congress) the stronger aspects of our policies, as well as any decision to proceed with domestic reprocessing. As a subsidiary consideration, I am not convinced that a new bureaucratic layer -- the proposed Nuclear Policy Council -- will enhance management effectiveness. You

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might consider using instead existing interagency committees, such as the specially constituted Under Secretaries Committee described in the attachment, to coordinate US nuclear policies.

Proposed Diplomatic Approaches

Your review group has identified the important need for diplomatic consultations prior to, and actions following, your nuclear policy statements. I believe that your statement will afford a significant opportunity to catalyze multilateral support for the safeguards, physical security, restraints, incentives and sanctions components of our nuclear policies. Pursuant to the review group's recommendations for next steps, I propose that you authorize:

1. Rapid, advance consultations with the IAEA and my counterparts in Canada, France, the FRG, Japan, UK and USSR on the broad nuclear policy initiatives you desire to announce; and incorporation into your nuclear policy message of the results of these advance consultations by the NSC and the Department, working with the Domestic Council.

2. Exploration of your new nuclear policy proposals (including, if you approve, our recommendations for fuel pooling and an international nuclear fuel bank concept) with other supplier and consumer states, prior to my development of the comprehensive negotiating plan suggested by your review group.

3. Active pursuit of our standing proposals for an export moratorium on reprocessing facilities and technology, use of supplier-based reprocessing services, and international plutonium management, in the framework of the London nuclear suppliers' meetings, consistent with your nuclear policy decisions.

4. Accelerated interagency review of technological, economic and commercial alternatives for maximizing use of enriched uranium incentives, under effective controls, to support policies of greater non-proliferation restraint.

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Recommendations:

1. That you authorize the diplomatic approaches and follow-on actions proposed above.

Approve \_\_\_\_\_ Disapprove \_\_\_\_\_

2. That you direct incorporation in the Presidential message of the international nuclear policy elements I have described above, consistent with your decisions on the recommendations of the nuclear policy review group.

Approve \_\_\_\_\_ Disapprove \_\_\_\_\_

Attachment:

State Department Positions on Nuclear Policy Report

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STATE DEPARTMENT POSITIONS ON  
NUCLEAR POLICY REPORT TO THE PRESIDENT

1. Non-Proliferation Restraints. The Department generally supports a firmer policy on restraints in US nuclear cooperation which stresses cooperation with NPT parties or countries accepting full safeguards and with countries prepared to forego or restructure their re-processing options. We also support an approach which makes a clear distinction between (1) cooperation under new and amended agreements and (2) cooperation under existing agreements. For both categories of recipients, we would underscore the general need for a multilateral approach. US leadership in non-proliferation is important and consistent with our past policies and recent initiatives in forming the London Suppliers' Group. But excessively stringent or rigid unilateral US policies will at best have limited benefits, since we no longer dominate the international nuclear market and will not be able to obtain new restraints without concerted supplier actions.

On the more specific restraint recommendations:

-- For negotiating new or amended US nuclear cooperation agreements, we strongly support the recommendation that the US apply these restraints as non-binding criteria for engaging in new or expanded nuclear cooperation. We should recognize, however, the importance of gaining common supplier policies on these restraints, and be prepared to state that we will apply them as conditions as soon as other suppliers agree to do the same. The President's public statement would make this basic approach explicit. We support the Review Group's conclusion that new restraints should not be mandatory requirements in the absence of multilateral agreement. (In this connection, the options on "retroactive sanctions" must be seen as possible elements of a legislative strategy that must be accomplished in coordination with the Congress.) Even with a Presidential override, such a unilateral policy could impair our flexibility in pursuing non-proliferation objectives with specific suppliers and recipients.

-- For cooperation under existing agreements, we strongly endorse the proposal to use diplomacy and a strategy of inducements to persuade the many key target

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countries in this category to voluntarily renegotiate existing agreements with new restraints. In addition, in connection with our attempts to find an acceptable compromise with the JCAE on its Nuclear Export Bill, we see merit in the recommendation that NRC use the agreed London Supplier Guidelines as criteria in granting export licenses under existing agreements. But even with the proposed Presidential override, we are concerned that such an approach could be viewed as an attempt by the US to impose these guidelines retroactively, to the detriment of our relations with a number of major allies and our overall credibility as a supplier. Finally, we oppose the imposition of new restraints as a condition of further US supply until common supplier agreement is achieved on this point. Even then, such a course of action would contravene the legal terms of our international agreements, thereby risking adverse legal, foreign policy, and even non-proliferation consequences.

As a fundamental point for recipients in both categories, we would emphasize the vital link between gaining new restraints and offering attractive inducements through fuel buy-back and exchange, and possible leasing. All such inducements should be coordinated with other suppliers, since uncoordinated inducements may look to other suppliers as a US attempt to preempt a larger share of nuclear fuel and related reactor markets. In particular, the more attractive and reliable we make our enriched uranium supply using existing and planned facilities within the broad framework of the Nuclear Fuel Assurances Act, the more success we will have in obtaining effective restraints on reprocessing. The President's public statement should relate inducements to restraints to the degree of specificity judged feasible in light of our ability to consider offering new fuel supply or service arrangements. These issues are discussed further below in the context of our recommendations regarding alternatives to national reprocessing.

In general, nuclear consumers will become less disposed to relying on the US if we arbitrarily impose more stringent conditions on nuclear agreements after their terms have been mutually agreed. We must therefore ensure that the NRC licensing procedures are responsive to national policy as executed by the President, within legislative requirements. Nuclear export licenses should not be used as a lever for obtaining new constraints from countries which

live up to their obligations to us. NRC procedures should be perceived instead as a means of predictably implementing our policies of providing inducements, such as guaranteed reactor fuel supply, for countries accepting effective non-proliferation constraints.

2. Alternatives to National Reprocessing. The Department supports the first option, "contain the spread of national reprocessing." We share the Review Group's recognition of the need for strong and specific US initiatives to achieve an international fuel-exchange regime based upon:

-- inducements for recipients, in the form of assured and equitable front-end fuel services in exchange for their spent fuel; and

-- inducements for suppliers, in the form of joint fuel-service support for reactor sales in non-nuclear weapon states, in exchange for withholding sensitive nuclear technology from further spread under national control.

The Department supports the steps recommended to further these objectives. However, we further recommend that the President call for the exploration by interested nations of an "international nuclear fuel bank" concept, through which the potential benefits of plutonium recycle would be shared under international controls, while the reprocessing activities incidental to achieving those benefits would be confined, initially to a few major supplier countries, but eventually include a few carefully sited multinational plants. The Department has developed further proposals for making significant forward movement in establishing an effective fuel exchange regime. These proposals are consistent with but go further than the review group's recommendations in relating restraint requirements to fuel inducements. With the President's approval, the following approaches would be integrated into the fuel-exchange elements already presented in the nuclear policy report:

-- As a matter of national policy, the President would express:

(i) For recipients accepting our tightest non-proliferation restraints, notably no national reprocessing and enrichment facilities, US willingness to acquire some or all spent fuel of US origin, at the customer's option, in exchange for fresh enriched uranium under attractive terms (i.e., guaranteed feed and enrichment services).

(ii) For recipients who do not agree to renounce national reprocessing and enrichment facilities but are not constructing such facilities now and are prepared to place all spent fuel under international storage, future enrichment guarantees at market rates but repurchase of spent fuel only at US option.

(iii) For recipients unwilling to accept our restraints in new or amended agreements, including storage under international auspices, US insistence on a purchase or exchange option for US supplied or derived spent fuel. All suppliers would be urged to offer such options.

-- To lend multilateral impetus to the foregoing arrangements, the President would express publicly US readiness to explore with interested supplier nations possible arrangements for pooling fuel-exchange capabilities through such means as tie-in fuel sales, cross-investment in enrichment and reprocessing facilities, joint enrichment and reprocessing facilities, joint enrichment guarantees, spent fuel storage as needed to support such arrangements, and an eventual international fuel bank.

Finally, the Department supports the Review Group's recommendations for strengthened fuel assurances, increased enrichment capacity which could support fuel exchange arrangements, and an appeal for passage of the NFAA as an essential ingredient in our non-proliferation strategy. It strongly supports strengthened high-level diplomatic approaches to other supplier governments, on a confidential basis in the first instance, seeking a one-to-two year moratorium on exports of sensitive facilities and pursuing possible fuel pooling arrangements as a means of minimizing commercial competition in fuel cycle services.

3. Domestic Reprocessing Options. The Department is not in a position to make a comprehensive judgment on the domestic benefits of the various reprocessing options presented in the report. As the report notes, the economic benefits of domestic reprocessing are uncertain and possibly marginal.

From the point of view of our international and non-proliferation interests, domestic decisions on reprocessing and recycle may have an important impact in two respects:

-- A perception internationally that the US has taken a decisive step toward plutonium recycle may make national reprocessing appear both more respectable and more economically attractive. We could argue that such a step is justified because of the size of the US nuclear program, but it is not clear whether this would overcome such perceptions, particularly when announced as a Presidential initiative.

-- The possession or lack of a US reprocessing capability may have an important effect on our ability to negotiate workable joint fuel-exchange arrangements with other suppliers.

Negative international perceptions could probably be reduced to an acceptable level if the US were to begin a limited program, but only if its size, substance, and rationale were consistent with a larger US non-proliferation program which received general international credence. In sum, our domestic and international choices must be part of an integrated whole.

Provided that an international policy along the lines we have recommended is also adopted, the Department can support adoption of Option 1, to "assist industry to gain experience with reprocessing," with certain modifications, along the following lines:

-- The program should be identified from the outset as experimental in nature without prejudging its outcome, and its content should justify this description;

-- We do not object to a demonstration project as proposed, consisting of Government support for the AGNS plant plus design of a larger plant with no near-term commitment to construct this second facility;

-- The possibility of substantial Government involvement in any second plant should, however, be held open;

-- There should be aggressive pursuit of alternative technologies to reprocessing and recycle as an element of the program;

-- The program should explicitly allow for financial participation by other nations (both suppliers and consumers) and joint exploration of service arrangements, but should specifically exclude service commitments or technology transfers except as part of agreed arrangements among suppliers.

-- The program should be presented as an integral part of our overall strategy, with emphasis upon its potential role in improving safeguards, supporting joint fuel-exchange arrangements, developing alternative technologies, and possibly as a future element of an international fuel bank.

-- The program should be reviewed at the end of two years to assess the economic and technological benefits of reprocessing in the light of what has been learned, and the advisability of proceeding with construction of a plant beyond AGNS, in the light of progress made toward an international fuel-exchange regime.

4. Strengthened Sanctions. We support a publicly articulated sanctions policy along the lines proposed as a means of balancing our non-proliferation and overall foreign policy objectives. The proposed approach includes at least automatic cut-off of US nuclear supply if our safeguards are clearly breached, reaffirms the seriousness with which the US would view any safeguards violations, and stresses the need for consultations among suppliers and consumers to determine what collective

actions should be taken. We do not believe that a US policy should go further than these steps, either in terms of incorporating explicit non-nuclear responses or in terms of adopting more rigid unilateral policies.

The Department will consult in advance of a public statement with other countries, and in particular seek to elicit comparable statements from other key suppliers. We will also pursue diplomatic efforts to gain multi-lateral supplier support for IAEA-related initiatives in this area and seek supplier agreement to curtail nuclear cooperation with any non-nuclear weapons state hereafter testing a nuclear device, regardless of whether safeguards obligations are violated (recognizing that it is unlikely that France would agree).

5. IAEA Storage Regime: We support promotion of this concept, with particular near-term emphasis on storage arrangements for spent reactor fuel. A Presidential statement endorsing this concept and expressing a willingness of the US to participate, can provide impetus to our on-going diplomatic efforts in the context of the London Suppliers' Group and in the IAEA to translate the international storage objective into reality. We will consult in advance of such a statement with key suppliers and the IAEA Director General. In both public statements and private consultations, when discussing the role of such a storage regime for separated plutonium, we should be wary of appearing to condone national reprocessing.

6. Strengthened IAEA Safeguards. We support the proposed program to sponsor safeguards demonstrations for sensitive facilities, offer an ERDA laboratory to support development of new techniques, and explore possibilities for greater US contributions to improving agency capabilities. The Department is prepared to seek cooperation from other suppliers and recipients in reinforcing our initiatives, and believes that a public statement surfacing these proposals would be useful in this connection.



7. Strengthened Physical Security. We support a policy of strengthening and standardizing physical security over nuclear materials. We have made significant progress in establishing physical security guidelines for suppliers to follow as result of the London Suppliers' understandings. Before going beyond these agreed standards, the US should first seek to bring its own national standards up to these levels. The concept of an international convention -- which has been proposed internationally in 1974 and again in 1975 in the UNGA and explored diplomatically with other suppliers and in the IAEA context -- could be mentioned as part of an overall nuclear policy statement. But it should be recognized that the prospects for strong, mandatory provisions as well as early negotiation of such a convention are limited.

8. Waste Management. We support the review group's recommendations on waste management, but further recommend that the US publicly propose the pursuit of international R&D initiatives in this field. We also propose that specific attention be given to the question of whether the US could accept foreign waste, if we ever entered into an international reprocessing service program.

9. Non-Nuclear Technologies. The Department supports these proposals and will work with ERDA in studying possibilities. However, we do not see substantial opportunities emerging which could provide an effective near-term deterrent to smaller countries desiring to obtain nuclear power plants. In the proper context, on the other hand, initiatives in non-nuclear energy cooperation may be helpful in dissuading certain countries from acquiring sensitive nuclear facilities, such as reprocessing plants. In formulating and implementing any such program, we should draw upon the efforts we are making in the IEA and in CIEC to cooperate with LDCs in the energy field. Of particular importance might be the US proposal for an International Energy Institute which we are discussing within the IEA and CIEC, following up the various proposals we made at the UN Seventh Special Session.

10. US Safeguards Effectiveness. We support the proposals for assuring the effectiveness of US safeguards, with the understanding that upgraded intelligence efforts should be responsive to our broader

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non-proliferation policy needs and not injurious to the IAEA. We would also seek other supplier support for fall-back bilateral safeguards and work with them to gain timelier access to IAEA safeguards information.

11. Public Statement. The Department does not believe that the UNGA would be an appropriate forum to discuss new non-proliferation policies emphasizing tougher constraints. While the drama and worldwide scope of a Presidential UNGA address are positive factors, such a message would likely be attacked as restrictive and discriminatory by the less developed countries, even if balanced by offers of inducements. On the other hand, a domestic message, perhaps to the Congress, would present an opportunity to underline both the safeguards and constraints inherent in our nuclear policies and the experimental character of any domestic reprocessing program. If the President nonetheless selects the UNGA as the forum for a statement on nuclear policy, the Department would recommend that he emphasize the cooperative aspects of our non-proliferation policy.

12. Nuclear Policy Organization. Rather than the proposed Nuclear Policy Council including State, ERDA and ACDA, we believe that consideration should be given to continuation of the existing NSC/VPWG mechanism or a specially constituted Under Secretaries Committee reporting to the President through the NSC and the Domestic Council. Instead of establishing another bureaucratic layer, the Department favors the option of an Under Secretaries Committee as the most flexible and coherent means of effectively representing the interests of the domestic and foreign policy agencies. Whatever the institutional arrangement, the Department of course welcomes the review group's support of its lead responsibility (in coordination with other relevant agencies) in the diplomatic and foreign policy elements of US nuclear policies.

September 4, 1976

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