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NUCLEAR POLICY

A STATEMENT BY PRESIDENT GERALD R. FORD

Today the peoples of the world face a threat unlike any in history. It is the threat of nuclear weapons proliferation, the threat that nuclear explosives will spread -- to new nations, to new regions of the world, and even to terrorists. It is a threat that is the more formidable because it arises from the promise of nuclear power as a realistic alternative to continuing dependence on diminishing and uncertain supplies of imported oil.

If we fail to comprehend and contain this threat, the result, inevitably, will be tragedy. But we can -- and we will -- end this danger by understanding it clearly and acting wisely in concert with other responsible nations.

For a world in which the possession of nuclear arms becomes increasingly widespread would be a world in which the security of all is imperiled. Maintaining international stability in such an environment would be incalculably difficult and dangerous. In times of regional or global crisis, risks of nuclear devastation would be immeasurably increased -- if not through direct attack, then through a process of ever expanding escalation. Nor can we ignore the perils of theft or seizure which increased availability of nuclear weapons must entail.

The problem of nuclear proliferation has been a major concern of my Administration since I first took office. Last summer I directed that our efforts be brought to their culmination by a complete review of our nuclear policies. I

received the results of this review before Labor Day, and have since deliberated with great care on its recommendations.

Today, I am announcing new American policies based on those recommendations. We have approached the major supplier countries to begin discussion of these policies, and I am convinced that our new policy will benefit not only the national interest of the United States, but also the welfare of all nations for generations to come.

My policy deals with the world as it is, not as we might wish it; it is a policy that reconciles legitimate national interests in nuclear power with nonproliferation imperatives. Indeed, developing the policies and the programs to prevent proliferation without eliminating the enormous benefit of nuclear energy is one of the major challenges facing all the nations of the world today.

-- There are legitimate interests in nuclear power. The 1973 energy crisis dramatically demonstrated to all nations not only the dangers of excessive reliance on oil imports, but also the reality that the world's supply of fossil fuels inevitably is dwindling. As a result, nuclear energy is now seen by many nations as an indispensable way to satisfy rising energy demands without prematurely depleting finite fossil fuel resources. Nuclear energy can lessen their deepening dependence on foreign energy sources, and diminish the world economy's vulnerability to fluctuations in the supply of oil. And for nations with no fossil fuel reserves of their own,

nuclear power can be central to their economic well being. We must understand the motives which are leading these states to place even greater emphasis than we do on nuclear power development. For unless we comprehend their real needs we cannot expect to find ways of working with them to ensure that their legitimate concerns and ours are both met.

-- Yet the peaceful application of nuclear energy confronts us with a dilemma. Nuclear fuel, once it has been burned to produce power, contains plutonium, which can be chemically separated from the spent fuel. That plutonium can then be used to help generate additional power. Unfortunately -- and this is the root of the problem -- plutonium is a key ingredient of nuclear explosives. The world community simply cannot afford to let this dangerous material or the technologies needed to separate it from spent fuel spread uncontrolled over the globe. We should not permit it to be produced and utilized unless and until the most stringent conditions and arrangements for avoiding proliferation are developed and adhered to.

-- But no single nation, not even the United States, can hope by itself to control effectively the spread of reprocessing technology and the resultant availability of plutonium. The United States once was the predominant supplier of worldwide nuclear material equipment and technology. While we remain a leader in this field, today other suppliers have come to share the international market -- with the U.S. now supplying less than half of nuclear reactor exports. Therefore it is

essential that we exercise our leadership through catalyzing cooperative international action, not through futile attempts to impose our nonproliferation policy on suppliers and consumers. We must avoid the temptation for rhetorical gestures, empty threats or righteous posturing.

From the outset of the nuclear age, the United States has recognized the dangers of proliferation. And we have been a leader in efforts to bring them under control. We took steps to share the benefits of the peaceful atom, while acting to control its spread for military purposes when President Eisenhower proposed establishment of the International Atomic Energy Agency. We took the leading role in negotiating the Nuclear Non-Proliferation Treaty.

Since according top priority to nonproliferation shortly after I took office in 1974, we have made considerable progress in reducing the possibility of increasingly widespread possession of atomic weapons which could eventually spark the holocaust that all mankind fears.

But the urgency of our task has become even more pressing. We and other nations now face critical nuclear policy decisions.

In forging my new nuclear policy initiatives, I have proceeded in the conviction that avoidance of proliferation must take precedence over economic and commercial interests. Great as the economic benefits of reprocessing are, they cannot justify the dangers that may threaten a world faced with the uncontrolled availability of plutonium. There are also pro-

liferation risks related to the unrestrained spread of the technology for producing highly enriched uranium -- a material which can also be used in nuclear explosives.

As a result of my nuclear policy review, I therefore believe strongly that the reprocessing and recycling of plutonium ought not proceed until there is confidence that the world community can effectively overcome the associated risks of proliferation. The review also confirmed the major role that nuclear power must play in meeting both domestic and foreign energy needs, regardless of whether plutonium is eventually found to be acceptable as fuel. To reach this fundamental judgment requires vigorous action on both the international and domestic fronts. Internationally, I have decided that the United States will undertake diplomatic initiatives, in conjunction with nuclear suppliers and consumers, to control the spread of plutonium and technologies for separating plutonium. I am, therefore, directing the Secretary of State to seek the support of other nations for strengthened nonproliferation approaches including the coordination of restraints and assuming reliable fuel supplies in ways which prevent these from becoming elements of commercial competition.

This effort requires the cooperation and support of suppliers and consumers alike. Indeed peaceful uses of nuclear energy can only prosper within a credible international system which reduces nuclear risks for all nations and enables legitimate energy needs to be met. In pursuing global approaches to non-

proliferation, the United States recognizes the responsibility to cooperate with other states in realizing the peaceful benefits of nuclear energy. And we will do so with nations prepared to dedicate themselves to nonproliferation.

Domestically, we must ensure that our programs and policies are compatible with our international position on reprocessing. I have therefore determined that the United States should no longer regard reprocessing of used nuclear fuel to produce plutonium as a necessary additional step in the nuclear fuel cycles, and that it should be pursued only if the economic, and above all, nonproliferation uncertainties are resolved. I am directing the Administrator of the Energy Research and Development Administration to develop programs to conform with this policy.

We are committed to construct a new era of global cooperation in nuclear energy founded on strong U.S. support. From this basis, I am proposing a nuclear policy to deal specifically with the three major areas of concern: coordinating international action; strengthening national export policies; and developing domestic reprocessing programs needed to complement these.

First, I am directing new and accelerated international initiatives to:

-- persuade other supplier nations to join us in exercising maximum restraint in the transfer of reprocessing and enrichment technology and equipment;

-- explore arrangements for coordinating the resources of

suppliers so that they can offer to countries accepting responsible restraints assured nuclear fuel supply and services, instead of sensitive technology, at equitable prices without commercial advantage or disadvantage;

-- seek arrangements with consumer nations that adopt responsible nonproliferation restraints under which we would mutually agree on disposition of spent reactor fuel and, as appropriate, financial reimbursement or fresh reactor fuel of equivalent energy value in return;

-- pursue the establishment of our international regime for the storage of excess civil plutonium and spent reactor fuel;

-- urge a major commitment of financial and scientific resources to strengthen the safeguards capabilities of the International Atomic Energy Agency and to vigorously pursue cooperative international efforts to upgrade physical security standards; and

-- set a firm policy of international penalties for safeguards violations.

Second, in recognition of the continuing need to exercise international leadership in strengthening controls over nuclear exports, I am directing that the United States take into account (apply/use) the following new criteria in peaceful nuclear cooperation with non-nuclear-weapon states:

-- whether recipients are parties to the Nonproliferation Treaty or are prepared to accept IAEA safeguards on all nuclear facilities;

-- whether they are prepared to forego or postpone national reprocessing and sensitive enrichment activities; and

-- whether recipients are willing to participate in an international spent fuel and plutonium storage regime.

I am also directing that the Secretary of State pursue discussions with other supplier seeking to expand common nonproliferation guidelines to conform with these criteria.

Third, to support our overriding nonproliferation objectives, and in consultation with other interested states, taking full account of their policies and programs, I have requested ERDA to develop expanded programs for my consideration that would:

-- increase our understanding of and help to resolve remaining uncertainties associated with the economics, safeguards and energy benefits of reprocessing and recycle. (These would complement NRC's evaluation of the necessity for and desirability of reprocessing and recycle);

-- develop and test new safeguards approaches;

-- provide safe and environmentally sound long-term waste disposed by 1985; and

-- pursue technology alternatives to reprocessing.

These are the foundations of our new approach, and the three areas which our policy will address. Let me now turn in more detail to these three central areas of concern.

## International Initiatives

A successful policy of reducing the worldwide risks associated with plutonium will require the support and cooperation of both supplier and consumer countries. To secure such support and cooperation, we must demonstrate to other nations that concurrence with the initiatives I am launching today will not harm their legitimate economic interests, while enhancing the future safety of all nations and all peoples. We will work at solving economic problems with all nations that join us in giving precedence to nonproliferation goals.

During the past two years, I have vigorously pursued nonproliferation through multilateral cooperation with other nations. Because of the growth of nuclear capabilities among several potential supplier nations, I have rejected highly publicized or unilateral approaches, which not only would be futile, but also could easily alienate both supplier and consumer nations whose cooperation is essential to the success of our nonproliferation efforts.

My most immediate concern has been to improve international safeguards and controls. In 1974, soon after I assumed office, we proposed strengthening and standardizing nonproliferation measures at the United Nations General Assembly.

In the fall of 1974, I became concerned that some nuclear supplier countries appeared to be prepared to offer nuclear exports under conditions less rigorous than we believed prudent,

in order to achieve competitive advantage. I communicated these concerns directly to my counterparts in key supplier and recipient nations. I directed the Secretary of State to explore ways of emphasizing multilateral action to limit this dangerous form of competition.

At our initiative, the first meeting of major nuclear suppliers was convened in London in April, 1975. Additional meetings and intensive bilateral consultations followed.

As a result of these meetings, we have developed progressive new guidelines to govern nuclear exports which are being applied -- involving both improved safeguards and controls to prevent diversion, and physical protection against theft and sabotage. This achievement has significantly raised international norms. The United States has adopted these guidelines as policy for nuclear exports.

In addition, we have acted to deal with the special dangers associated with plutonium. Even prior to today's decisions, the United States took the following steps:

-- We have prohibited export of reprocessing and other nuclear technologies that could contribute to proliferation.

-- We have firmly opposed reprocessing in Korea and Taiwan. We welcome their significant decisions to forego such activities and we will continue our efforts to discourage national reprocessing in other countries of concern.

-- We have negotiated agreements for cooperation with Egypt and Israel which contain the strictest reprocessing provisions and other nuclear controls ever included in the twenty-year history of our nuclear cooperation program.

Other important gains in the effort against proliferation have been made during the two years of my Administration. Last year, the Federal Republic of Germany, Italy, and other European states completed ratification of the Non-Proliferation Treaty. This year, Japan also ratified the Treaty.

In addition, last month, at my direction, we proposed to the International Atomic Energy Agency an agreement placing U.S. civil nuclear facilities under the safeguards of the IAEA, following extensive negotiations. This has now been approved by that Agency.

Despite the gains that have been made, the dangers posed by reprocessing and the prospect of uncontrolled plutonium demand further, decisive international action. There is, in addition, the parallel risk of spreading uranium enrichment technology which must continue to be effectively controlled, and is included in the concepts proposed throughout this statement.

To meet these dangers I propose the following comprehensive international program which flows directly from the fundamental policy decisions I have announced today:

I call upon all nations to join with us in exercising maximum restraint in the transfer of reprocessing and enrichment technology and facilities by avoiding or deferring such sensitive exports for a period of at least three years. This will allow suppliers and consumers to work together to establish reliable means for meeting nuclear needs with minimum risk, as we assess carefully the wisdom of plutonium use. As we proceed in these efforts, we must not be influenced by pressures to approve the export of these sensitive facilities.

I urge nuclear suppliers to provide nuclear consumers with nuclear fuel services, in place of sensitive nuclear technology. Nations accepting effective nonproliferation restraints have a right to expect reliable and economic supply of nuclear reactors and associated, nonsensitive fuel.

All such nations should share in the benefits of an assured supply of nuclear fuel, even though the number and location of sensitive facilities to generate this fuel is limited to meet nonproliferation goals. The availability of diverse fuel cycle services is several different nations can provide ample assurance to consumers of a continuing and stable source of supply.

It is also desirable to continue studying the idea of a few suitably-sited multinational fuel cycle centers to serve regional needs, when effectively safeguarded and economically warranted. Through these and related means, we can minimize incentives for the spread of dangerous fuel cycle capabilities.

The United States stands ready to take action, in cooperation with other concerned nations, to assure reliable supplies of nuclear fuel at equitable prices to any country accepting responsible restraints on its nuclear power program with regard to reprocessing, plutonium disposition, and enrichment technology. At my direction, the Secretary of State will initiate consultations to explore arrangements for coordinating fuel service supply resources and for developing other means of ensuring that suppliers will be able to offer, and consumers will be able to receive, an uninterrupted and economical supply of low-enriched uranium fuel and fuel services. These discussions will address ways to ensure against economic disadvantage to cooperating nations and to remove any sources of competition which could undermine our common nonproliferation efforts.

To contribute to this initiative, with regard to current U.S. recipients, and in new agreements for cooperation, the U.S. will offer binding letters of intent for the supply of nuclear fuel to countries willing to accept such responsible restraints. These would be fulfilled either by new government capacity or by private suppliers at our discretion.

In addition, the United States is prepared to enter into negotiations or arrangements for mutual agreement on disposition of spent fuel with consumer nations that adopt responsible restraints. Where appropriate and where it can demonstrably

foster our common and cooperative nonproliferation objectives, in return for mutually agreed on disposition of spent fuel, the United States will provide consumer nations with either fresh, low-enriched uranium fuel of equivalent energy value or reimbursement. The United States seeks no commercial advantage in pursuing options for fuel disposition and assured fuel supplies.

To reinforce these policies, we must develop means to establish international restraints over the accumulation of plutonium itself, whether in separated form or in unprocessed spent fuel. The accumulation of plutonium under national control is a major destabilizing influence and, as such, a primary proliferation risk.

The United States will, in the immediate future, pursue discussions aimed at the establishment of a new international regime to provide for storage of excess civil plutonium and spent reactor fuel. I am directing that we vigorously pursue this proposal which we made to the International Atomic Energy Agency and other interested nations last spring.

Creation of such a regime will greatly strengthen world confidence that the growing accumulation of excess plutonium and spent fuel can be stored safely, pending reentry into the nuclear fuel cycle or other safe disposition. I urge the IAEA,

which is empowered to establish such a depository, to give prompt implementation to this concept.

Once a broadly representative IAEA storage regime is in operation, we are prepared to place our own excess civil plutonium and spent fuel under its control. Moreover, we are prepared to consider providing a site for international storage under IAEA auspices.

The inspection system of the IAEA remains a key element in our entire nonproliferation strategy. The world community must make sure that the Agency has the technical and human resources needed to keep pace with its expanding responsibilities. At my direction, we have recently committed substantial additional resources to help upgrade the IAEA's technical safeguards capabilities.

To further strengthen the safeguards function of the IAEA, I am directing that a major international effort be undertaken to ensure that adequate resources for this purpose are made available, and that we mobilize our best scientific talent to support that Agency. Two of our principal national laboratories have been directed to provide assistance, on a continuing basis, to the IAEA Secretariat.

The terrible increase in violence and terrorism throughout the world has sharpened our awareness of the need to assure

rigorous protection for sensitive nuclear materials and equipment. Fortunately, the need to cope with this problem is now broadly recognized. Many nations have responded to the initiatives which I have taken in this area by materially strengthening their physical security and by cooperating in the development of international guidelines by the IAEA. As a result of consultations among the major suppliers, provision for adequate physical security is becoming a normal condition of supply.

Steps are still urgently needed, however, to upgrade physical security systems to meet international norms, and to assure timely international collaboration in the recovery of lost or stolen materials. On the basis of my review of nuclear policies, I have directed that the United States vigorously address the problem of physical security at both bilateral and multilateral levels, including exploration of a possible international convention.

The United States is prepared to embark with all its resources on development of the system of international controls that I have here outlined. Even when complete, however, no system of controls is likely to be effective, if a potential violator judges that his acquisition of a nuclear explosive will be received with indifference by the international community.

Any material violation of a nuclear safeguards agreement -- especially the diversion of nuclear material for use in making explosives -- must be universally judged to be an extremely serious affront to the world community, calling for the immediate imposition of drastic sanctions. I serve notice today that the United States will respond to violation by any nation of any safeguards agreement to which we are a party with, at a minimum, immediate cut off of our supply of nuclear fuel and cooperation to that nation. We would consider further steps, not necessarily confined to the area of nuclear cooperation, against the violator nation. Nor will our actions be limited to violations of agreements in which we are directly involved. In the event of material violation of any safeguards agreement, particularly agreements with the IAEA, we will initiate immediate consultations with all interested nations.

Universal recognition of the total unacceptability of the abrogation or violation of any nonproliferation agreements is one of the most important steps which can be taken to prevent further proliferation. We invite all concerned governments to affirm publicly that they will regard nuclear wrongdoing as an intolerable violation of acceptable norms of international behavior, which would set in motion strong and immediate counter-measures.

Finally, the U.S. will continue to expand cooperative efforts with other countries in developing their indigenous energy resources. The U.S., in its world leadership role, has proposed the establishment of an International Energy Institute, specifically designed to help developing countries match the most economic and readily available sources of energy to their power needs. In many cases, this source will be nonnuclear. Through this Institute and other appropriate means, we will offer technological assistance in the development of indigenous energy resources.

#### National Export Policy

During the past two years, the United States has strengthened its own national nuclear export policies. Our interests, however, are not limited to controls alone. The United States has a special responsibility to share the benefits of peaceful nuclear energy with other countries. We have sought to serve other nations as a reliable supplier of nuclear fuel and equipment. Given the choice between commercial benefits and progress toward our nonproliferation goals, we have given, and will continue to give, priority to nonproliferation. But there should be no incompatibility between nonproliferation and assisting other nations in enjoying the benefits of peaceful nuclear power, if all supplier countries pursue common nuclear export policies. There is need, however, for

even more rigorous controls than those now commonly accepted, and for policies that favor nations accepting responsible nonproliferation limitations.

On the basis of my recently completed study of nuclear policies, I have decided that we will henceforth apply new criteria in judging whether to enter into new or expanded nuclear cooperation with a nonnuclear weapon state.

These new criteria are:

-- Adherence to the Non-Proliferation Treaty will be a strong positive factor favoring cooperation.

-- Nations that have not yet adhered to the Non-Proliferation Treaty will receive positive recognition if they are prepared to submit to full fuel cycle safeguards, pending adherence.

-- Recipient nations prepared to forego, or postpone for a substantial period, the establishment of national reprocessing or enrichment activities or, in certain cases, prepared to shape and schedule their reprocessing and enriching facilities to foster nonproliferation needs, will be favored.

-- Positive recognition will also be given to nations prepared to participate in an international storage regime, under which excess fuel and any separated plutonium would be placed pending use.

Exceptional cases may occur in which nonproliferation will best be served by cooperating with states not yet meeting these tests. However, new agreements which are exceptions to these criteria will require my personal approval prior to their submission to the Congress.

In recognition of the need for effective multilateral approaches to nonproliferation and to prevent nuclear export controls from becoming an element of commercial competition, I am directing the Secretary of State to intensify discussions with other nuclear suppliers aimed at expanding common guidelines for peaceful cooperative agreements so that they conform with these criteria. In this regard, the United States would discuss ways of developing incentives that can lead to acceptance of these criteria, such as assuring reliable fuel supplies for nations accepting new restraints.

The reliability of American assurances to other nations is an asset that few, if any, nations of the world can match. It must not be eroded in the nuclear, or any other, area. Indeed, nothing could more prejudice our efforts to strengthen our existing nonproliferation understandings than arbitrary suspension or unwarranted delays in meeting supply commitments to countries which are dealing with us in good faith regarding effective safeguards and restraints.

Despite intensive personal efforts on my part, the 94th Congress adjourned without passing nuclear export legislation which would have strengthened our effectiveness in dealing with other nations on nuclear matters. In the absence of such legislation, I am directing the Secretary of State to work closely with the Nuclear Regulatory Commission to ensure proper emphasis on nonproliferation concerns in the nuclear export licensing process.

I will continue to work with Congress to achieve improvements in our nuclear export laws, with due account for the need for broad-based multilateral support. I will work to develop bipartisan support for new legislation in their field during the next session of Congress.

#### Implications for Domestic Policy

We must increase the use of nuclear power to serve our own national well-being and this can be done safely.

Our dependence on imported oil has risen 20 percent since 1973, largely due to the failure of Congress to act on my Administration's energy program. The dangers in this situation are obvious.

We must continue emphasizing energy conservation, and pursuing developing of solar energy and other new nonnuclear energy sources. Under my Administration, conservation research has more than quadrupled. Solar energy research has increased from \$15 million to \$116 million, and research on other nonnuclear resources has also been substantially raised. But we must recognize that these new energy sources are in their infancy. No responsible scientific authority holds that they can significantly contribute to meeting our energy needs before 2000, at the very earliest.

Nuclear energy and coal as well as further development of natural gas are necessary to fill the gap that remains.

The key question that we are now addressing is whether we can safely allow plutonium to be separated from used nuclear fuel on a commercial scale. Nuclear power can and must continue to expand in the U.S. even as we address the uncertainties associated with the use of plutonium as a fuel.

Equally important, we must formulate a national nuclear policy for this expansion of nuclear power which is responsive to our nonproliferation concerns. If we are to play a leading role in influencing global plutonium decisions, we must examine objectively the crucial issues related to reprocessing and seek to resolve the uncertainties associated with it. Only by so doing can we keep faith not just with future generations of Americans, but with our friends and partners abroad who will look to us to provide a credible justification if asked. This is consistent with our request to others to refrain from reprocessing.

I am therefore requesting ERDA to develop programs:

-- To address remaining uncertainties regarding the economics, safety and safeguarding of reprocessing and recycle facilities.

-- To provide from the demonstrated technologies now available a full-scale waste depository by 1985.

-- To explore the feasibility of technological alternatives to reprocessing.

Consistent with asking other supplier and consumer nations to join us in avoiding export of reprocessing technology, we will explore means to include appropriate participation by other nations in this experimental program, in such a

manner as to support our nonproliferation objectives, taking into account the nuclear programs of others. I have directed the Secretary of State and the Administrator of ERDA to consult with the IAEA and with interested states in defining the scope and nature of our experimental effort.

The program will fit into the framework of our recently approved arrangement with the IAEA to place U.S. civil nuclear facilities under safeguards, serving as a testing ground for the development and demonstration of techniques to provide safeguards against diversion of pure plutonium for use in nuclear weapons. In this connection, we will urge the IAEA to test and apply the most vigorous possible safeguards to relevant projects associated with the experimental program. Finally, this program will complement the on-going Nuclear Regulatory Commission proceedings concerning the wide-scale use of mixed oxide fuel in nuclear reactors.

The decision I have made today does not effect the U.S. program of research and development on the breeder reactor. That program assumes that no decision on the commercial operations of breeder reactors, which require plutonium fuel, will be made before 1986.

Recognizing the critical importance of environmentally sound long-term disposal of radioactive wastes my administration fees

already moved to provide an effective program to assure this and my FY 1977 budget quadrupled the budget for our program to dispose of nuclear waste. We expect to demonstrate a complete depository for such waste by 1985. I have recently directed, however, a speed-up of the program to demonstrate the components of waste disposal technology by the end of 1978. I have also directed that the first demonstration depository be submitted for licensing by the Nuclear Regulatory Commission to assure its safety and acceptability to the public.

Consistent with my decision that reprocessing is no longer to be viewed as inevitable, I am directing today that the waste disposal program include careful study of the feasibility of long-term storage of spent fuel that has not been reprocessed.

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The challenge of nuclear proliferation demands candor. It can perhaps be managed -- but only partially and temporarily by technical measures. It can only be solved, however, if all of us face the problem realistically. These realities are fundamentally political, relating to the determination and foresight of leaders in resisting perceived short-term advantages in favor of fundamental long-term gains. We ask all leaders to recognize that their individual and collective interests are best served by internationally assured

and safeguarded nuclear fuel supply, services and storage. We ask them to turn aside from pursuing nuclear capabilities which are of doubtful economic value and have ominous implications for nuclear proliferation and instability in the world.

The record to date is not perfect. The broad consensus against the acquisition of nuclear weapons is a source of encouragement, but it is certainly not a basis for complacency.

I do not underestimate the scope and complexity of the challenge and the program I have just put forward to meet it. Success depends on an extraordinary coordination of the policies of all nations toward the common good. The U.S. is prepared to lead, but we cannot succeed alone. If nations can work together constructively and cooperatively to manage our common nuclear problems we will enhance our collective security. And we will be better able to concentrate our energies and our resources on the great tasks of construction rather than consume them in increasingly destructive rivalry.

10/21/76

NUCLEAR POLICY



A STATEMENT BY PRESIDENT GERALD R. FORD

We have known since the age of nuclear energy began more than 30 years ago that this marvelous source of energy had the potential for tremendous benefits for mankind and the potential for destruction.

On the one hand, there is no doubt that this energy source represents one of the best hopes for satisfying the rising world demand for energy with minimum environmental impact and with the potential for reducing dependence on uncertain and diminishing world supplies of oil.

On the other hand, nuclear fuel, as it produces power also produces plutonium, which can be chemically separated from the spent fuel. This plutonium can then be recycled and used as fuel to generate additional nuclear power without the need for additional energy resources. Unfortunately -- and this is the root of the problem -- the same plutonium, when chemically separated is also a key ingredient of nuclear explosives.

The world community cannot afford to let dangerous nuclear materials that can be used for explosives or the technology to produce them spread uncontrolled over the globe or permit them to be produced and utilized by any nation or group unless the most stringent security conditions and arrangements for avoiding proliferation are adhered to.

] Developing the means to prevent proliferation while preserving the enormous benefits of nuclear energy is one of the major challenges facing all nations of the world today.

The first task in dealing with the problem of proliferation is to understand the world nuclear situation. Briefly:

- More than 30 nations now have or plan to build nuclear power plants.
- Several nations have the capacity to export nuclear materials and technology.
- The U. S. now supplies less than half of nuclear reactor exports

In short, the U. S. no longer has a monopoly on nuclear technology.

Although our role is large, we are not by ourselves able to control worldwide nuclear development. Action to control proliferation must be an international cooperative effort involving many nations, including both nuclear suppliers and customers. Common standards must be developed and accepted by all parties. If this is not done, unrestrained trade in sensitive nuclear technology and materials will develop -- with no one in a position to stop it.

We must recognize that interests in nuclear energy vary widely among nations. We must recognize that some look to nuclear energy because they have no acceptable energy alternative. We must be sure that our efforts to control proliferation are not viewed by such nations as an act to prevent them from enjoying the benefits of nuclear energy. We must be sure that all nations recognize that the U.S. believes that non-proliferation objectives must take precedence over economic and energy benefits if a choice must be made.

The seriousness and the complexity of the problem places a special burden on those who propose ways to control proliferation. They must avoid the temptation for rhetorical gestures, empty threats or righteous posturing. They must offer policies and programs which deal with the world as it is, not as they might wish it. Our goal is to prevent proliferation, not merely sound as if we deplore it.

#### PREVIOUS ACTION

During the past 30 years, the U.S. has been the unquestioned leader in worldwide efforts to assure that the benefits of nuclear energy are made available widely while its destructive uses are prevented. I have given special attention to these objectives during the past two years, and we have made important new progress, particularly in efforts to control the proliferation of nuclear weapons capability among the nations of the world.

In 1974, soon after I assumed office, I proposed strengthening and standardizing non-proliferation measures at the United Nations General Assembly. In the fall of that year, I became concerned that some nuclear supplier countries, in order to achieve competitive advantage, were prepared to offer nuclear exports under conditions less rigorous than we believed prudent. I expressed this concern directly to my counterparts in key supplier and recipient nations. I directed the Secretary of State to emphasize multilateral action to limit this dangerous form of competition.

At our initiative, the first meeting of major nuclear suppliers were convened in London in April 1975. And a series of meetings and intensive bilateral consultations followed.

As a result of these meetings, we have significantly raised international standards through progressive new guidelines to govern nuclear exports. These involve both improved safeguards and controls to prevent diversion, and physical protection against theft and sabotage. The United States has adopted these guidelines as policy for nuclear exports.

In addition, we have acted to deal with the special dangers associated with plutonium.

- We have prohibited export of reprocessing and other nuclear technologies that could contribute to proliferation.
- We have firmly opposed reprocessing in Korea and Taiwan. We welcome the decisions of those nations to forego such activities; we will continue to discourage national reprocessing in other locations of particular concern.
- We negotiated agreements for cooperation with Egypt and Israel which contain the strictest reprocessing provisions and other nuclear controls ever included in the twenty-year history of our nuclear cooperation program.
- In addition, the United States recently offered to place its civil nuclear facilities under the safeguards of the International Atomic Energy Agency-- and the IAEA has approved a proposed agreement for this purpose.

NEW INITIATIVES

Last summer, I directed that a thorough review be undertaken of all our nuclear policies and options to determine what further steps were needed. I have considered carefully the results of that review, held discussions with Congressional leaders, and benefited from consultations with leaders of other nations. On the basis of those activities, I concluded that a comprehensive set of measures were required to:

- strengthen commitment of the nations of the world to the goal of non-proliferation and build an effective system of international controls to prevent proliferation.
- change and strengthen U. S. domestic nuclear policies and programs to contribute to our non-proliferation goals.
- by these actions, pave the way for increased use of nuclear energy in the U. S. and in the world in a safe and economic manner.

The task we face calls for an international cooperative venture of unprecedented dimensions. The U.S. is prepared to work with all others.

PRINCIPAL POLICY DECISIONS

On the basis of our recent review, I have decided on a number of policy decisions that are necessary and appropriate to meet our non-proliferation and energy objectives.

-- First, I have concluded that it is neither necessary nor desirable to proceed at this time with commercial scale chemical reprocessing of nuclear fuel which results in the separation of plutonium. Those responsible for nuclear development here and abroad have long assumed that reprocessing and recycle of plutonium would occur. However, our recent review has led me to conclude that there are uncertainties that should be resolved before a final decision is made here or abroad to proceeding with commercial reprocessing.

-- Second, I have concluded that major new actions are needed worldwide to reduce the threat of proliferation, particularly from the spread of technology and facilities for reprocessing and for producing certain nuclear materials.

Accordingly, I am calling upon all nations to join with us in exercising maximum restraint in the transfer of reprocessing and uranium enrichment technology and facilities by avoiding or deferring such sensitive exports for a period of at least three years.

- Third, I have concluded that new steps are needed on an international cooperative basis to help assure that all nations have an adequate and reliable supply of energy for their needs. I believe, most importantly, that nuclear supplier nations have a special obligation to assure that customer nations have an adequate supply of fuel for their nuclear power plants, if those customer nations forego the acquisition of reprocessing and uranium enrichment capability and accept effective proliferation controls.
- Fourth, I have concluded that new efforts must be made to urge all nations to join in a full-scale international cooperative effort -- which I shall outline in detail -- to develop a total system of effective controls to prevent proliferation.
- Fifth, I have concluded that the U.S. will take new steps with respect to its own exports to control proliferation.
- Sixth, I have concluded that the U.S. must maintain its role as a major and reliable world supplier of nuclear reactors and fuel for peaceful purposes. Our strong position as a competitive supplier has

provided the principal basis for our influence and leadership in worldwide non-proliferation efforts. A strong position will be equally important in the future. While reaffirming this nations that the U.S. seeks no competitive advantage by virtue of the worldwide system of effective non-proliferation controls that I am calling for today.

--Seventh, I have concluded that the U.S. should continue to increase its use of nuclear energy in the years ahead. Even with strong efforts to conserve, we will have increasing demands for energy for a growing economy. To satisfy these needs, we must rely on increased use of both nuclear energy and coal until more acceptable alternatives are developed. We will push ahead with work on all promising alternative technologies but it is clear that we cannot expect a major contribution to our energy supply from any of these alternatives until late in this century.

-- Finally, I have concluded that new steps are needed to assure that we have in place when needed, both in the U.S. and around the world, the facilities for the long-term storage or disposal of nuclear wastes.

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ACTIONS TO IMPLEMENT OUR NUCLEAR POLICIES

In order to implement the nuclear policies that I have outlined, a major effort will be required within the United States and by the many nations around the world with an interest in nuclear energy. To move forward with that effort I am today announcing a number of actions that I am taking and a number of proposals that I am making to other nations.

I. Change in U.S. Policy on Nuclear Fuel Reprocessing

First, with respect to nuclear fuel reprocessing, I am directing agencies of the Executive Branch to undertake a number of actions to implement my decision to delay commercial-scale reprocessing activities in the U.S. until significant economic uncertainties are resolved: Specifically:

- I am directing the Administrator of the Energy Research and Development Administration (ERDA) to:
    - ° change his agency's policies and programs which, heretofore have been based on the assumption that reprocessing would proceed;
    - ° begin immediately to define a program of reprocessing and recycle experiments and evaluations to resolve economic uncertainties.
- This program should be developed in consultation

with the Nuclear Regulatory Commission (NRC) and complement that agency's work on safety, safeguards and environmental requirements for reprocessing and recycling activities, particularly its Generic Environmental Statement on Mixed Oxide Fuels.

- ° encourage industry to proceed immediately with the expansion of spent fuel storage facilities, thus assuring utilities that they need not be concerned about shut down of nuclear reactors because of delays.
- ° identify the research and development efforts needed to investigate alternatives to reprocessing to include means of recovering the energy value from used nuclear fuel without separating out plutonium.

-- I am directing the Secretary of State to invite other nations and the International Atomic Energy Agency (IAEA) to participate in designing and carrying out the reprocessing and recycle experiments and evaluations that are needed to resolve uncertainties, and to make clear that any demonstration activities carried out in the U.S. will be subject to full IAEA safeguards and inspections.

II. Moratorium on Export of Sensitive Nuclear Technology and Facilities

Progress we have made,  
Despite the/ there are new dangers of nuclear proliferation that have resulted from the spread of capability to reprocess nuclear fuel and to produce other nuclear materials that could be used for nuclear explosives. As the first step in a comprehensive international program to meet this danger:

- I call upon all nations to forego either the export or the acquisition of reprocessing and enrichment technology and facilities for a period of at least three years.

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- I call upon all nations to forego either the export or the acquisition of reprocessing and enrichment technology and facilities for a period of at least three years.

This action will allow nuclear supplier and consumer nations to work together to establish reliable means for meeting nuclear needs with minimum risk, as we assess carefully the wisdom of reprocessing and use of plutonium.

III Assuring an Adequate Energy Supply for Customer Nations

Second, I believe that a number of specific actions must be taken to assure energy importing nations that acceptance of effective non-proliferation controls will not interfere with their right to a reliable and economic energy supply. Such assurances are necessary so that all nations will understand that the proposed moratorium on sensitive facilities and technology and other new controls to prevent proliferation will not adversely effect their essential interests.

-- I urge all nuclear suppliers to provide their consumers nuclear fuel services in place of sensitive nuclear technology.

An international review of the desirability of proceeding with reprocessing may lead to the criteria that the number and location of sensitive facilities to generate sensitive fuel must be limited to meet non-proliferation goals. The availability of diverse fuel cycle services in several different nations can provide ample assurance to consumers of a continuing and stable source of supply. We must continue to study the possibility of providing fuel cycle services through a multinational center.

The United States will do its part to ensure that any country accepting responsible restraints on its nuclear power program with regard to enrichment, reprocessing and plutonium disposition will have an assured supply of nuclear fuel.

-- I have directed the Secretary of State to offer binding letters of intent for the supply of nuclear fuel to countries -- current as well as prospective recipients -- willing to accept such responsible restraints.

This reaffirms the commitment I made in June, 1975. Such supply requirements will be met either by private U.S. suppliers or by new U.S. government-owned capacity.

-- I have also directed the Secretary of State to enter into negotiations or arrangements with consumer nations that adopt responsible restraints under which we would mutually agree on the disposition of spent fuel, where appropriate and where it can demonstrably foster our non-proliferation objectives.

In return, these nations would be either reimbursed or assured of fresh, low-enriched fuel of equivalent energy value. A primary objective of such agreements would be to ensure against economic disadvantages to the cooperating nation.

In pursuing a program of assured fuel supply and fuel exchange, the United States seeks no commercial advantage. The program can and will be administered to avoid unfair advantage in the sale of reactors or related services. At my direction, the Secretary of State will initiate consultations: to explore arrangements for coordinating such resources; and to develop other means to ensure that suppliers can offer, and consumers can receive an uninterrupted and economic supply of non-sensitive nuclear fuel and fuel services.

IV. A Total System of International Controls against Proliferation

The proposed moratorium on the export of technology and facilities for reprocessing and uranium enrichment is one step. I am today proposing a total system. First:

-- I call upon all nations to pursue discussions aimed at establishing a new international regime to provide for storage of excess civil plutonium and spent reactor fuel.

The U.S. first described this proposal to the International Atomic Energy and other interested nations last spring. Creation of such a regime will strengthen world confidence that the accumulation of excess plutonium and spent fuel can be stored safely, pending re-entry into the nuclear fuel cycle or other safe disposition. I urge the IAEA, which is empowered to establish such a depository to give urgent consideration to this concept. Once a broadly representative IAEA storage regime is in operation, the United States is prepared to place its excess civil plutonium and spent fuel under its control, and, we are prepared to consider providing a site for international storage under IAEA auspices.

-- I have directed the Secretary of State to initiate discussions with the IAEA with a view to expanding their safeguards capabilities.

I am prepared to propose a major commitment of additional resources to the IAEA for this purpose and I have already instructed two of our principal national laboratories to

provide assistance, on a continuing basis, to the IAEA Secretariat. The inspection system of the IAEA is a key element in our non-proliferation strategy. The world community must make sure that the Agency has the technical and human resources needed to keep pace with its expanding responsibilities. I call upon the other nations to join in increasing support for the IAEA safeguards program.

-- I have directed the Secretary of State and other agencies concerned to address vigorously with other nations at both a bilateral and multilateral level, the problem of physical security for nuclear facilities. The possibility of an international convention should be considered.

In the United States, we have an effective physical security system for our facilities. But, the terrible increase in violence and terrorism throughout the world has sharpened our awareness of the need to assure rigorous protection for sensitive nuclear materials and equipment. Many nations have responded to the initiatives which I have taken in this area by strengthening their physical security over sensitive nuclear materials and by cooperating in the development of international guidelines by the IAEA. As a result of consultations among the major suppliers, provision for adequate security is becoming a normal condition of supply. Additional steps are urgently needed, however, to upgrade physical security systems to meet international norms, and to assure international collaboration to swiftly recover lost or stolen materials.

The United States intends to make every effort to assume an effective system of international controls work. But, even when complete, no system of controls can be fully effective, if a potential violator judges that his acquisition of a nuclear explosive will be received with indifference by the international community.

-- I serve notice today that the United States will immediately cut off our supply of nuclear fuel and cooperation to any nation that violates a safeguards agreement to which we are a party. We will, moreover, consider further steps, not necessarily confined to the area of nuclear cooperation against any nation that materially violates a safeguards agreement, whether or not we are directly involved. Particularly in the case of agreements with the IAEA, we will initiate immediate consultations with all interested nations aimed at achieving appropriate and convincing international action.

Any material violation of a nuclear safeguards agreement -- especially the diversion of nuclear material for use in making explosives -- must be universally judged to be a grave affront to the world community, calling for the immediate imposition of drastic sanctions. Such universal recognition of the total unacceptability of the abrogation or violation of any non-proliferation agreements is one of the most important steps which can be taken to prevent further proliferation. We call upon all concerned governments to affirm publicly that they

will regard nuclear wrongdoing as an intolerable violation of acceptable norms of international behavior, and one which will set in motion strong and immediate counter-measures.

#### V. Changes in U.S. Nuclear Export Policies

The United States has long felt a special responsibility to share the benefits of peaceful nuclear energy with non-nuclear countries. At the same time, we have been a leader in insisting upon controls against proliferation.

I believe that all nations, both nuclear suppliers and customers, should agree to adopt rigorous controls against proliferation as a fundamental condition of international trade in nuclear reactors and fuel for peaceful purposes.

The common guidelines that were adopted by supplier nations last January provide an effective beginning. In addition to these controls, the U.S. intends to demonstrate its firm commitment to rigorous controls by adopting new criteria for its bilateral agreements.

-- I have decided that the United States henceforth will apply new criteria in judging whether to enter into new or expanded nuclear cooperation with a non-nuclear weapon state:

- ° Adherence to the Non-Proliferation Treaty will strongly and positively affect our decision to cooperate.

- Nations that have not yet adhered to the Non-Proliferation Treaty will receive positive recognition if/they are prepared to submit to full cycle safeguards.
- We will favor recipient nations which undertake to forego, or postpone establishing national reprocessing or enrichment activities or which in certain cases, shape and schedule their reprocessing and enriching facilities to foster non-proliferation needs.
- We will favor recipient nations which undertake to participate in an international storage regime.

In some exceptional cases, non-proliferation interests may be served best by cooperating with nations not yet meeting these tests. However, I have decided to go beyond the requirement in present law. But, I pledge that the Congress will not be asked to approve any new or amended agreement not meeting these new criteria unless I personally determine and certify that the agreement is fully supportive of our non-proliferation goals.

-- I have directed the Secretary of State to:

- open discussions with other nuclear suppliers in an effort to shape common guidelines to conform with these criteria;
- enter into negotiations with respect to countries that already are receiving U.S. nuclear supplies aimed at conforming these agreements to established international guidelines, and to seek through

diplomatic initiatives their acceptance of the new criteria described above.

The reliability of American assurances to other nations is an asset that few, if any, nations of the world can match. It will not be eroded in the nuclear area. Nothing could more prejudice our non-proliferation efforts than arbitrary suspension or unwarranted delays in meeting supply commitments to countries which are dealing with us in good faith and employing effective safeguards and restraints.

Despite intensive personal efforts on my part, the 94th Congress adjourned without passing nuclear export legislation which would have strengthened our nuclear export policies and increase our effectiveness in dealing with other nations on nuclear matters.

-- I am directing the Secretary of State, in the absence of such legislation, to work closely with the Nuclear Regulatory Commission to ensure proper emphasis on non-proliferation concerns in the nuclear export licensing process.

-- I will submit to the new Congress proposals to achieve improvements in our nuclear export laws, with due account for the need for broad-based multilateral support.

On the basis of suggestions from the Congress and my initiatives, I will work to develop bipartisan support for new legislation in this field during the next session of Congress.

VI. Strengthening the U.S. Role as a Reliable Supplier

If the U.S. is to continue its leadership role in worldwide non-proliferation efforts, it must be a reliable and competitive supplier of nuclear reactors and fuel for peaceful purposes. There are two principal actions we can take to contribute to this objective:

- I will submit to the new Congress, proposed legislation that will permit the expansion of capacity in the United States to produce enriched uranium, including the authority needed for expansion of the Government-owned plant at Portsmouth, Ohio and authority to enter into cooperate agreements with private firms that are prepared to finance, build, own and operate enrichment plants.

U.S. capacity has been fully committed since mid-1974 with the result that no new orders could be signed. The Congress did not act on my full proposal and provided only limited and temporary authority for proceeding with the Portsmouth plant. We must have additional authority to proceed with the expansion of capacity without further delay.

- I will work closely with the Congress to assure that the legislation referred to above for improving our export controls results in a system that provides maximum assurance that the U.S. will be a reliable supplier to other nations for the full period of agreements.

One of the principal concerns of opponents of export

legislation was the fear that foreign customers could be subjected to arbitrary new controls imposed well after a long-term agreement for nuclear power plants and fuel had been signed. In the case of nuclear plants and fuel, reliable long-term agreements are essential and we must adopt export controls that provide reliability while meeting non-proliferation objectives.

#### VII. Increased Use of Nuclear Energy in the United States

I believe that we must increase the use of nuclear energy in the United States in the years ahead. Even with strong efforts to conserve, energy demands will increase in response to the needs of a growing economy. The only alternative over the next 15 to 20 years to increased use of both nuclear energy and coal is greater reliance on imported oil which will jeopardize our nation's strength and welfare.

We now have 62 nuclear plants licensed to operate in the United States providing about 9 percent of our electrical energy. By 1985, we will have about 150 plants, supplying about 20 percent of the Nation's electricity.

In most cases, electricity from nuclear plants is cheaper than that produced from either oil or coal-fired plants. My environmental advisers believe that nuclear energy is preferable from an environmental point-of-view than other principal ways of generating electricity.

Commercial nuclear power has an excellent safety record, with nearly 200 plant years of experience (over 18 years) without a single death from a nuclear accident. I have acted to assure that the record continues in the years ahead. I increased funds for the independent Nuclear Regulatory Commission and for the Energy Research and Development Administration for reactor safety R&D.

The decisions I have announced today do not effect the U.S. program of research and development on the breeder reactor. That program assumes that no decision on the commercial operations of breeder reactors, which require plutonium fuel, will be made before 1986.

I believe that, with the changes I am announcing today, we are on the right track with our nuclear power program in America.

#### VIII. Nuclear Waste Management

There is one area of our domestic nuclear program that, in the past, did not receive the attention it warranted. That is the area of long-term management of nuclear wastes from our commercial nuclear power plants. This is an area that has concerned me as it has others. In my 1977 Budget, I proposed a four-fold increase in funding for this program. Last March, we undertook a full scale review of the program, which involves the activities of several Federal agencies, to see what additional actions might be needed to assure that a Federally-owned and managed repository for long-term

nuclear wastes would be available in the mid-1980's, well before significant wastes begin to accumulate.

I have now been assured that the technology for long-term management or disposal of nuclear wastes is available but demonstrations are needed.

-- I have directed the Administrator of ERDA to take the necessary action to speed up his program so as to demonstrate all components of waste management technology by 1978 and to demonstrate a complete repository for such wastes by 1985.

-- I have further directed that the first demonstration depository which will be owned by the Government be submitted for licensing by the independent NRC to assure its safety and acceptability to the public.

In view of the decisions announced today, I have also directed the Administrator of ERDA to assure that the waste repository will be able to handle spent fuel elements as well as the separated and solidified waste that would result if we proceed with nuclear fuel reprocessing.

The United States is well ahead of other nations in its nuclear waste programs. I am inviting other nations to participate in and learn from our programs. I am also directing the Secretary of State to discuss with other nations and the IAEA the possibility of centrally located

multinationally controlled nuclear waste repositories so that the number of sites that are needed can be limited.

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I do not underestimate the challenge represented in the creation of a world-wide program that will permit capturing the benefits of nuclear energy while protecting against nuclear proliferation. The challenge is one that can be managed only partially and temporarily by technical measures.

It can be managed fully if the task is faced realistically with determination and foresight of leaders who will resist perceived short-term advantages in favor of fundamental long-term gains. We call upon all leaders to recognize that their individual and collective interests are best served by internationally assured and safeguarded nuclear fuel supply, services and storage. We ask them to turn aside from pursuing nuclear capabilities which are of doubtful economic value and have ominous implications for nuclear proliferation and instability in the world.

The record to date is not perfect. The broad consensus against the acquisition of nuclear weapons is a source of encouragement, but it is certainly not a basis for compacency.

I do not underestimate the scope and complexity of the challenge and the program I have just put forward to meet it. Success depends on an extraordinary coordination of the policies

of all nations toward the common good. The U.S. is prepared to lead, but we cannot succeed alone. If nations can work together constructively and cooperatively to manage our common nuclear problems we will enhance our collective security. And we will be better able to concentrate our energies and our resources on the great tasks of construction rather than consume them in increasingly dangerous rivalry.