PROPOSED AMENDMENTS TO THE NUCLEAR NON-PROLIFERATION ACT, 1983

HEARINGS

BEFORE THE

COMMITTEE ON FOREIGN AFFAIRS

AND ITS

SUBCOMMITTEES ON
INTERNATIONAL SECURITY AND SCIENTIFIC AFFAIRS

AND ON

INTERNATIONAL ECONOMIC POLICY AND TRADE

OF THE

HOUSE OF REPRESENTATIVES

NINETY-EIGHTH CONGRESS

FIRST SESSION

ON

H.R. 1417 and H.R. 3058

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PROPOSED AMENDMENTS TO THE NUCLEAR NON-PROLIFERATION ACT, 1983

TUESDAY, SEPTEMBER 20, 1983

HOUSE OF REPRESENTATIVES, COMMITTEE ON FOREIGN AFFAIRS, SUBCOMMITTEES ON INTERNATIONAL SECURITY AND SCIENTIFIC AFFAIRS AND ON INTERNATIONAL ECONOMIC POLICY AND TRADE,

Washington, D.C.

The Subcommittees on International Security and Scientific Affairs and on International Economic Policy and Trade met at 10:10 a.m., in room 2172, Rayburn House Office Building, Hon. Don Bonker (chairman of the Subcommittee on International Economic Policy and Trade) presiding.

Mr. BONKER. The subcommittees will come to order.

This morning the Subcommittees on International Security and Scientific Affairs, chaired by Mr. Zablocki, and on International Economic Policy and Trade are sponsoring the first of four joint hearings on the subject of nonproliferation.

Specifically, the subcommittees which share jurisdiction in the nonproliferation field will consider two major legislative proposals to amend the Nuclear Non-Proliferation Act of 1978. H.R. 1417,[1] sponsored by Representative Howard Wolpe, previously sponsored in the last Congress by the then chairman of this subcommittee, Mr. Bingham, and H.R. 3058, sponsored by Representative Richard Ottinger.

Since the enactment of the NNPA 5 years ago, we have witnessed a number of significant developments in the field, both at home and abroad. Ironically, as the public's awareness of the dangers of proliferation has grown, the importance and urgency that the Reagan administration claimed to attach to this problem has diminished dramatically. It appears that this administration places a greater premium on the promotion of U.S. nuclear business rather than on preventing the possible development of nuclear weapons.

The legislation pending before the subcommittee will attempt to deal with these important matters.

The legislation seeks to respond to the lessons we have learned from our experience with NNPA as well as to the loopholes that have been revealed through the administration's attempt to transfer this technology and equipment to other countries, particularly

[1] See texts of H.R. 1417 and H.R. 3058 in apps. 1 and 2, respectively.

to those who are not signatory to the various international treaties that attempt to discourage the production of nuclear weapons.

I have a statement that is prepared by the chairman of the International Security and Scientific Affairs Subcommittee that I would like to enter in the record at this time.

[Chairman Zablocki's prepared opening statement follows:]

OPENING STATEMENT OF HON. CLEMENT J. ZABLOCKI, CHAIRMAN

This morning the Subcommittees on International Security and Scientific Affairs and on International Economic Policy and Trade meet to hear testimony from Congressional witnesses on H.R. 1417 and H.R. 3058, amendments to the Nuclear Non-Proliferation Act of 1978.

Hearings were held during the 97th Congress on the predecessor to H.R. 1417, sponsored by our former colleague from New York, the Honorable Jonathan Bingham. While some differences arose over mechanical aspects of that legislation, there were no differences over its ultimate goals. Today's hearing continues the examination by these two subcommittees of ways to strengthen the international nuclear nonproliferation regime, and I look forward to hearing the views of our distinguished colleagues.

We welcome the Honorable Howard Wolpe, a Member of Congress from the State of Michigan and Chairman of the Subcommittee on Africa, the Honorable Morris K. Udall, a Member of Congress from the State of Arizona and Chairman of the Interior Committee, and the Honorable Edward J. Markey, a Member of Congress from the State of Massachusetts and a subcommittee chairman of the Interior Committee. Mr. Wolpe, would you proceed?

Mr. BONKER. I would also like to ask if the ranking member of the International Security and Scientific Affairs Subcommittee has an opening statement. Mr. Broomfield.

Mr. BROOMFIELD. No.

Mr. BONKER. If not, Mr. Roth who is ranking member of the International Economic Policy and Trade Subcommittee.

Mr. ROTH. Thank you, Mr. Chairman.

I am pleased to be here today at this joint hearing to hear the three distinguished colleages discuss the important issue of nonproliferation.

I believe each and every one of us agrees that the proliferation of nuclear technology in the wrong hands may be the greatest danger for the future of our civilization.

Mr. Chairman, I want to take the slight liberty this morning to discuss certain provisions of the legislation before us. I have reviewed the provisions of this legislation and I was struck by the similarity between much of the terminology in the proposed Nuclear Explosives Control Act and the Export Administration Act.

H.R. 3058

For example, H.R. 3058 speaks of controls on the export of technology, so does the Export Administration Act. H.R. 3058 spells out the end-use restrictions which can only be labeled as the extraterritorical application of U.S. policy.

Statements by the former distinguished chairman of this subcommittee, Mr. Bingham, described the conflict among agencies involved in the licensing of nuclear-related materials and technology. The same problem is found upon examination of licensing within the Export Administration Act.

Now, the bill before us places additional responsibility with the Secretary of Defense, in essence, to veto nuclear exports. The very

same issue has arisen in the current EAA debate; that is, whether or not the Secretary of Defense should have a greater role in approving or disapproving export license applications for reasons of national security.

The legislation before us addresses the problem of end-use restrictions and the prevention of diversion. Preventing diversion is a problem for both nonproliferation and the Export Administration Act.

COSTS TO AMERICAN INDUSTRY

It is argued that the costs to American industry of nuclear export controls are necessary costs because an overriding national policy to prevent diversion and the likelihood of the improper use of nuclear products and technology. The same issues exist with the export of high technology, even with our closest friends and allies in Western Europe and Japan, the so-called Cocom countries.

Mr. Chairman, still another concept emerges, that of foreign availability. With nuclear exports, the legislation appears to advocate unilateral controls. The same issue is hotly debated within EAA. If we see justifications for unilateral controls here, how can we argue they are inapplicable to the sale of our most advanced technology which could enhance Soviet military power.

Finally, Mr. Chairman, the bill we examine today extends the reach of U.S. law and regulation to foreign subsidiaries and affiliates of U.S. companies as well as to goods and technologies controlled by the United States.

It seems to me that this type of extraterritorial control is accepted by many members to carry out U.S. policy for compelling national security factors. Such extraterritorial jurisdiction within the Export Administration Act is also considered essential for reasons of national security and foreign policy.

I raise these similarities because accepting them or rejecting them in H.R. 3058 regarding nuclear nonproliferation or in the Export Administration Act is a matter of policy, not of law; a question of what Congress thinks is best for the country, as opposed to their regulatory burden. A measure of consistency is necessary because of the similarities between pieces of legislation.

I thank you, Mr. Chairman.

Mr. BONKER. Thank you, Mr. Roth, for an excellent statement and appreciate your reference to the similarities with the Export Administration Act. Given that fact and your position on the EAA, I trust you will be supporting tighter controls when the legislation is before the subcommittee. [Laughter.]

Mr. ROTH. I thank the chairman.

Mr. BONKER. We have three distinguished witnesses, each of whom has taken special interest and is sponsoring legislation concerning nuclear nonproliferation.

I would like to welcome first the distinguished member of this subcommittee, Howard Wolpe of Michigan, who is the sponsor of H.R. 1417. Mr. Wolpe, you may proceed.

STATEMENT OF HON. HOWARD WOLPE, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF MICHIGAN

Mr. WOLPE. Thank you very much, Mr. Chairman. I greatly appreciate the opportunity to be before you this morning in a different kind of capacity, testifying before the committee on a subject that I believe is among the most important that the committee and the Congress will consider. The issue is worldwide nuclear proliferation, and at stake is the very survival of our Nation and our civilization.

The spread of nuclear weaponry to nonnuclear weapons states and groups is often obscured by the debate over the superpower arms race, a subject which itself impacts directly on the future of this planet.

But in a sense, global proliferation represents an even more dangerous threat. Through a combination of self-interest and restraint, the superpowers have successfully avoided the use of nuclear weapons for 28 years. But the spread of nuclear technology, materials, and information increases the threat of such capability being acquired by a nation or group that would not treat it so responsibly.

With only a small supply of plutonium, a terrorist group could hold the entire world hostage. With materials and technology diverted from certain kinds of commercial nuclear facilities, a small nation could turn a regional conflict into a catastrophic nuclear war. Indeed, one of the most likely scenarios for a nuclear exchange between the superpowers is one in which an initial attack is launched by a third party.

The United States, as the original nuclear weapons state and, until the mid-1970's, the world's largest supplier of nuclear materials, has a special responsibility to insure the prudent and peaceful use of this technology. Europe and the U.S.S.R. now supply about as much enriched uranium as we do.

We have always been mindful of that responsibility. From the passage of the Atomic Energy Act of 1946 to the Nuclear Non-Proliferation Act of 1978, we have sought to regulate the flow of materials, equipment, and information relevant to nuclear weapons development. A host of other responsible nations has joined with us, pledging to halt the trade in weapons-making technology and to accept international inspection of their own commercial nuclear facilities.

INSPECTION PROBLEMS

Nevertheless, numerous problems persist in the international inspection system created to safeguard against diversion of civil nuclear power to weapons development.

A number of nations have refused to ratify the nonproliferation agreements, creating doubt about the true nature of their nuclear programs. The trade in commercial nuclear materials and equipment continues unabated, with many of those materials easily adaptable to weapons-making programs. And the International Atomic Energy Agency is woefully overburdened in its efforts to acquire data and inspect the safety of nuclear facilities to assure there have been no diversions. The IAEA is really the only agency,

a minuscule agency exists for Latin Amercia—OPANOL—but it has no budget and little power.

In light of the continuing and increasing proliferation risk, I believe this country must redouble its efforts to restrict access to materials and information that facilitate weapons development. Passage of the landmark Nuclear Non-Proliferation Act of 1978 was a crucial step in that direction.

NNPA OF 1978

That act, passed with overwhelming bipartisan support, provided incentives to those nations that support strong nonproliferation policies; at the same time, it blocked exports to nonnuclear weapons states that were unwilling to submit all of their facilities to safeguards or to pledge they would not explode nuclear devices. This law serves U.S. interests well. But 5 years of experience with it have also demonstrated ways in which it should be strengthened and improved.

SUBSTANCE OF H.R. 1417

This year, I introduced legislation that I believe would close many of the loopholes of the NNPA and create an even more rational, consistent nuclear export policy. H.R. 1417 is identical to a bill sponsored in the 97th Congress by our distinguished former colleague, Jack Bingham, who also of course, was the chief sponsor and advocate of the original Nuclear Non-Proliferation Act.

That bill was unanimously approved by the Subcommittee on International Economic Policy and Trade and subsequently approved and ordered reported by the full Foreign Affairs Committee. The bill is cosponsored by 51 of our colleagues, including 13 members of the Foreign Affairs Committee. The bill addresses five major points:

First, it would make acceptance of internationally recognized safeguards a prerequisite for all U.S. nuclear exports, regardless of the reviewing or licensing agency. These guidelines currently apply to nuclear reactor and fuel exports licensed by the Nuclear Regulatory Commission, but not to nuclear-related assistance and technology authorized by the Departments of Energy and Commerce.

Second, it would provide stiffer criteria for the export of highly enriched uranium, requiring the use of less dangerous alternative fuels where possible and encouraging the development of more widely usable low enriched fuel.

Third, it would toughen current law regarding "subsequent arrangements," which allow the reprocessing of U.S. exported fuel. Under the bill, NRC concurrence would be required before the United States could grant approval for another nation to reprocess U.S.-supplied fuel into plutonium. Additionally, long-term "programmatic approvals" for reprocessing could only be approved if the grantee prohibited sales to nations that do not accept full-scope safeguards.

Fourth, it would give a stronger role to the Defense Department in the approval of commercial nuclear exports, providing the Secretary of Defense with a de facto veto over such arrangements if he determines that they pose a threat to national security.

Finally, it would prohibit the export of components and technology to be used in reprocessing in response to the serious questions raised about the safety and economic value of this process.

In my view, these restrictions are particularly appropriate in light of the apparent intention of the Reagan administration to continue promoting nuclear exports to nations that pose a serious proliferation risk.

In recent months, the administration has approved plans to supply nuclear reactor fuel and components to India; it has approved the retransfer of a computer and 143 tons of U.S.-origin heavy water to Argentina, and it is currently considering the licensing of an American company to service a nuclear reactor in South Africa.

STATE DEPARTMENT LETTER

I might parenthetically note in this connection that it is my understanding that the State Department is holding the letter that it has developed recommending approval to the Department of Energy of a license for American companies bidding for a management services contract to operate a nuclear plant within South Africa, pending the receipt of the letter that I am presently circulating among Members of Congress.[1]

With your permission, Mr. Chairman, I would like to ask that that letter be inserted in the record at the end of my testimony.

Mr. BONKER. Without objection, so ordered.

Mr. WOLPE. It is also my understanding that the African Bureau within the State Department has actually directly contacted some of the firms and told them to proceed on the assumption that the license will be granted, even before the approval process has run its course. I find that a very distressing development.

I might note that the administration decisions regarding India, Argentina, and South Africa have been made despite the fact that none of those nations has signed a nonproliferation treaty or agreed to international inspection of its facilities. Under the terms of H.R. 1417, all of these actions would be subject to NRC concurrence and/or congressional scrutiny.

A further concern is the administration's promotion of plutonium as a civilian nuclear fuel, despite the enormous danger of trade in the substance. Current world supplies of uranium will make plutonium fuel uneconomic for decades to come, and plutonium reprocessing technology is as applicable to weapons making as to commercial fuel development. My bill would discourage this practice by reinstating an export ban on reprocessing components and technology that has in fact been supported by past administrations of both political parties.

Mr. Chairman, the world events of the past few weeks have demonstrated the speed with which international crises can occur and the dangers of those crises escalating into conflict. I believe it is more important than ever before that we work to reduce the risk of nuclear attack or confrontation through serious negotiations on

[1] See app. 3.

arms reductions and new efforts to halt the spread of weapons-making capability.

I commend you and also Chairman Zablocki for convening these joint subcommittee hearings on this most serious question, and I thank you for this opportunity to testify.

Mr. BONKER. Thank you, Mr. Wolpe.

I see our other two witnesses are here. Since all are representing congressional views, I think at this time I will invite Chairman Udall and Mr. Markey to the table. Mr. Wolpe, if you can remain, I think that will give us an opportunity to hear from each of you and then proceed with questions.

Mr. Udall is chairman of the House Interior Committee and has had a longstanding interest in this subject. We are indeed privileged to have you before the subcommittees today, Mr. Udall. You may proceed.

STATEMENT OF HON. MORRIS K. UDALL, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF ARIZONA

Mr. UDALL. Thank you, Mr. Chairman. I have a statement which has been submitted for the record. I will dispense with it and highlight a few things if I can.

I appreciate your persistence in seeking to close the gaps in our nuclear nonproliferation policy. The bill I come to support here—the two bills—one of them was by Congressman John Bingham who was one of the real leaders in this subject area for a long time, and his leadership I followed with a good deal of pride and satisfaction.

My personal view is that the Nuclear Non-Proliferation Act provided the President adequate authority to pursue the policy Congress intended. In the presence of an administration more sensitive to the proliferation issue perhaps there would be no need for this legislation before us today.

FUTURE THREAT

When I think of all the concerns on the national or international scene, I would list the likely fact that within the next 15 or 20 years we are not going to have 6 or 7 nations with nuclear weapons, we will probably have 20 or 25—and they are not all going to be nice little ladies speaking the English language like Mrs. Thatcher, or the French, or some of our trusted allies. They are likely to be governments unstable, governments with a revolutionary twist who will be out to do more than just make threats about nuclear weapons.

I guess we all had different reactions over the Korean jetliner. I would share a couple of my personal apprehensions with the committees.

One is, no nuclear weapons were involved, apparently, with the planes that were involved. But if we had nuclear weapons on these planes the same people, the same Soviet leaders, with the same communication equipment, would have been making the key decisions on whether or not the world went to nuclear war.

I remember Senator Jackson, your great Senator from Washington, who used to say that his greatest fear was not a deliberate nu-

clear war but war by accident. We have come, a time or two, quite close to that.

So, I think the attention paid to this issue by these subcommittees is critically important and I urge you to continue it and, certainly, I will do what I can to help.

Unfortunately, the current administration seems unconcerned about the hazards of the plutonium fuel cycle. It appears to believe that production of nuclear explosive materials for commercial purposes does not increase the risk of proliferation. The administration seems to think we can allow people to have nuclear explosive materials but somehow prevent them from taking the final step of converting these materials into bombs.

I think the administration's premises are wrong. There is, of course, a direct relationship between our commercial nuclear activities and other nations' potential and ability to acquire nuclear weapons.

I am now skipping over to page 3.

ONGOING CONFLICTS

Current history provides a vivid picture of what might occur were nuclear weapons more readily available. There is a terrible and frightening aspect common to recent, ongoing conflicts in the Falklands, Iran and Iraq, and Lebanon. Each evolved in its own way such that its instigators would almost certainly have chosen a different course had they known the outcome beforehand. And unless we come to our senses, the potential for catastrophe inherent in such events will increase. As the number of nuclear nations grows, it is inevitable that at some point nuclear weapons will be used in circumstances which might now seem implausible.

Legislation incorporating the principles of H.R. 1417 and H.R. 3058 would tend to reinforce the message we intended in enacting the Nuclear Non-Proliferation Act of 1978. We said then that we as a nation were willing to forgo certain of the benefits of nuclear commerce in order to achieve our nonproliferation objectives.

Skipping to the next paragraph, on page 4.

If we are to be successful in persuading other countries to pursue strong antiproliferation policies, it will be necessary to remove ambiguities from our own. We need to demonstrate our own determination to not conduct our nuclear trade in a business-as-usual manner. We need to affirm that our policy is to keep nuclear explosive materials out of commercial channels. Enactment of legislation containing the principles of H.R. 1417 and 3058 will be an important manifestation of our resolve.

Before concluding, I would like to make one comment about the provisions of H.R. 3058 which allows subsidized sales of enrichment services.

This represents a departure from past practice and affects the whole of our enrichment service marketing and building strategy. It would result in significant costs and risks for the American taxpayer and will be more fully examined. I think the subsidization approach is worth trying only if we are assured that we could prevent plutonium-related activities in other parts of the world.

That concludes my statement, Mr. Chairman.

[Mr. Udall's prepared statement follows:]

PREPARED STATEMENT OF HON. MORRIS K. UDALL, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF ARIZONA

I admire this Committee's persistence in seeking to close gaps in our nuclear non-proliferation policy. My personal view is that the Nuclear Non-Proliferation Act of 1978 provided the President adequate authority to pursue the policy Congress intended. In the presence of an Administration more sensitive to the proliferation issue, there would be no need for the legislation that is before you.

Unfortunately, the current Administration seems unconcerned about the hazards of the plutonium fuel cycle. It appears to believe that production of nuclear explosive materials for commercial purposes does not increase the risk of proliferation. The Administration thinks it can allow people to have nuclear explosive materials, but somehow prevent them from taking the final step of converting these materials into bombs.

The Administration seems indifferent to the dangers of nuclear commerce conducted without effective safeguards. It appears to have closed its eyes to the unsettling fact that equipment and materials ostensibly destined for peaceful purposes can and do contribute to other nation's nuclear weapons programs. Furthermore, the President and his advisors seem to accept as gospel the notion that nations having an intent to acquire nuclear weapons will do so irrespective of efforts by us and others to restrict nuclear commerce.

The Administration's premises are wrong. There is of course a direct relationship between our commercial nuclear activities and other nation's potential and ability to acquire nuclear weapons. We need only recognize that by the end of this decade, some 50 tons of plutonium will be produced each year in the world's power reactors. From this amount of plutonium more than 2000 nuclear weapons could be fabricated. It takes little imagination to envision what would happen if a small portion of this plutonium should fall into the wrong hands whether by theft or by reprocessing with equipment obtained from us or other supplier nations.

I do not accept the Administration's negative and simplistic view. I believe we can take steps to stem the flow of nuclear weapons techonology; and I believe we have a responsbility to do so.

Current events emphasize our precarious state. International violence occurs for reasons that make no sense. The tragedy of Korean Airlines Flight 007 demonstrates how innocent beginnings can bring about consequences with dangerous implications for mankind.

Current history provides a vivid picture of what might occur were nuclear weapons more readily available. There is a terrible and frightening aspect common to recent and ongoing conflicts on the Falklands, Iran and Iraq, and Lebanon. Each evolved in a way such that its instigators would almost certainly have chosen a different course had they known the outcome beforehand. And unless we come to our senses, the potential for catastrophe inherent in such events will increase. As the number of nuclear nations grows, it is inevitable that at some point nuclear weapons will be used in circumstances which might now seem implausible.

While few of us here can expect in our lifetime to see the elimination of the threat of nulcear war, there are clear steps to be taken in that direction. Enactment of legislation to embody the principles of H.R. 1417 ad H.R. 3058 would be one such step.

This legislation will tend to reinforce the message we intended in enacting the Nuclear Non-Proliferation Act of 1978. We said then that we as a nation were willing to forgo certain of the benefits of nulcear commerce in order to achieve our non-proliferation objectives.

I know this legislation is not perfect. It is intended to plug loopholes in the previous legislation. There are those who will say, as they have said in the past, that we will not be viewed as reliable suppliers. It will be said that the imposition of further restrictions upon our own corporations will simply result in the transfer of nuclear commerce to other countries. I do not accept this argument. I would rather that we would not be considered a reliable supplier if this means that we must be oblivious to our exports being used to make bombs.

If we are to be successful in persuading other countries to pursue strong anti-proliferation policies, it will be necessary to remove ambiguities from our own. We need to demonstrate our own determination to not conduct our nuclear trade in a business-as-usual manner. We need to affirm that our policy is to keep nuclear explosive mateirals out of commercial channels. Enactment of legislation containing the principles of H.R. 1417 and H.R. 3058 will be an important manifestation of our resolve.

Before concluding, I would like to make one comment about the provision in H.R. 3058 which allows subsidized sales of enrichment services. This represents a departure from past practices and could affect the whole of our enrichment services and marketing and building strategy. It would result in significant costs and risks for the American taxpayer and will be more fully examined. I think the subsidization approach is worth trying only if we are assured that we could prevent plutonium related activities in other parts of the world.

Mr. BONKER. Thank you, Mr. Udall. We certainly appreciate your appearance today and your commitment to this issue, as well as your support of the legislation that is pending before the subcommittees.

Finally, we will hear from Mr. Markey of Massachusetts who, I understand, is chairman of the Nuclear Non-Proliferation Task Force and who is also the author of a book on this subject, "Nuclear Perils."

Mr. Markey, it is indeed a pleasure to have you before the subcommittees.

STATEMENT OF HON. EDWARD J. MARKEY, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF MASSACHUSETTS

Mr. MARKEY. Thank you, and thank you for allowing me to testify before your subcommittees today, Mr. Chairman.

It is a pleasure to be here to support H.R. 3058, introduced by Mr. Ottinger. At the same time, I am also a cosponsor of the legislation introduced by Mr. Wolpe because I believe the goals are similar although there are some differences in approach in particular areas.

If enacted, H.R. 3058 would require the United States to undertake new initiatives and once again to assume a leadership role in nonproliferation efforts.

If the United States fails to assume that role, I would not be optimistic about the chances for limiting the spread of nuclear weapons around the world.

During the past 3 years, the present administration has done much to undercut the bipartisan nonproliferation of its predecessors and has taken every opportunity to circumvent the restrictions of the Non-Proliferation Act. It has not sought to halt the spread of plutonium around the world, and it has been willing to engage in commerce with countries such as Argentina and India, which do not meet our basic nonproliferation standards.

That the situation is not much worse than it is can only be attributed to the lucky fact that the economics of nuclear power are poor. But if the trend in this administration's policies is not reversed, there is a very real risk that not before long an Argentina, an India, or a South Africa will build a bomb from nuclear materials the United States or another country has supplied.

LETTER TO THE PRESIDENT

On May 18, 1983, when H.R. 3058 was introduced, I joined with other Members of Congress in writing to the President and expressing our profound concern over the administration's relaxation of efforts to curb the spread of nuclear weapons.

This letter documents the inconsistent actions of this administration, which have "all too often been motivated by undue concern

for promoting nuclear export sales." I do not intend to repeat today all the points made in that letter. With the permission of the chairman, however, I would like to submit a copy for the record.[1]

Mr. MARKEY. The administration, unfortunately, does not appear to have taken our criticism to heart. Several events since May 1983 confirm the continuing lack of wisdom in this administration's policies on nonproliferation.

First, on June 30, 1983, the Secretary of State assured the Indian Government that it would be supplied reactor components for its Tarapur Atomic Power Station. This commitment was made even though India still refuses to budge on nonproliferation and reports have surfaced that it is preparing for another nuclear test. Indeed, shortly after that announcement, India indicated that it might go ahead and begin reprocessing Tarapur fuel into plutonium without U.S. approval, in contravention of our Agreement for Cooperation.

ADMINISTRATION POSITION ON INDIA

How the administration can give India what it wants while exacting nothing in return is inconceivable to me. Along with a number of Members of Congress, I have introduced a resolution urging the U.S. Government not to export or arrange for the export of additional components for Tarapur unless stronger nonproliferation guarantees are obtained.

Second, the administration announced on August 2 that it had approved the retransfer from West Germany to Argentina of 143 tons of heavy water. It approved this retransfer even though Argentina is not a party to the Non-Proliferation Treaty, does not have international safeguards on all its facilities, and, like India, has a strong interest in nuclear explosives. Because of the lack of clarity in existing law, the Department of Energy approved this retransfer without the concurrence of the Nuclear Regulatory Commission or notification of Congress.

Plainly, unless Congress takes the lead, this administration will continue on its disastrous course. The bill before the subcommittees is an essential part of the effort to change that course. It is time to lay down some rules that cannot be blithely ignored in the interest of commercial advantage or political expediency. It is time to lay down some rules that will insure that this and subsequent administrations act with consistency of purpose and strength in pursing our nonproliferation objectives.

H.R. 3058

H.R. 3058 has three principal objectives:

First, to restrict commerce in the most dangerous nuclear substances—plutonium and highly enriched uranium;

Second, to offer nations positive incentives not to use these dangerous substances in their nuclear programs, and

Third, to strengthen safeguards criteria in existing law and to insure, most importantly, that no U.S. exports will go to nations which do not have full-scope safeguards or agreements for cooperation with the United States.

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[1] See letter in app. 4.

It is, in short, a carefully balanced package of "carrots," "sticks," and improved export procedures, crafted to insure consistent and fair treatment of those countries which meet our basic nonproliferation criteria, while barring nuclear commerce with those countries which do not. It builds upon the excellent work done by former Chairman Bingham and others in the 97th Congress. In my judgment, if enacated, it will truly strengthen U.S. ability to stem the global spread of nuclear weapons.

The bill contains a number of detailed provisions to implement the basic policies I have just mentioned. Rather than take up the subcommittees' time with the description of these provisions, with the permission of the chairman, I would like to submit for the record a section-by-section analysis we prepared when the bill was introduced. I believe this summary sets out the rationale for and effect of the bill's specific elements.[1]

Nonproliferation is something of a moving target, and H.R. 3058 can be viewed as still a work-in-progress. The events of the past summer have indicated to me that yet further refinements may be appropriate. In particular, the Indian and Argentine cases make it clear that the retransfer provisions of the Non-Proliferation Act can and should be tightened considerably. I urge the subcommittees to give consideration to this issue.

In addition, the bill was introduced before the Supreme Court's action last term striking down the legislative veto. The Nuclear Non-Proliferation Act established a delicate balance between the Nuclear Regulatory Commission, the executive branch, and Congress. If Congress is now deprived of its ability to check the Executive, then I would favor imposing greater limitations on Presidential waiver powers. Again, I hope the subcommittees will give attention to this problem.

In closing, let me reiterate the importance of the task before the subcommittees. We have all spent a great deal of time this past year debating the nuclear freeze and expressing concern about the superpowers' arms buildup. But proliferation poses threats which may be just as great as the superpowers' arms race and it is just as critical to take action to insure that a nuclear holocaust is not triggered by the spread of nuclear weapons under the guise of purportedly peaceful nuclear commerce.

Prompt and favorable action on H R. 3058 is thus essential for our national security and for the cause of world peace.

Thank you, Mr. Chairman.

Mr. BONKER. Thank you, Mr. Markey.

I certainly appreciate references that you and your colleagues have made to the work of my predecessor who was chairman of this subcommittee. Mr. Bingham, who really led the efforts early on to come up with an effective policy on nonproliferation. Though he no longer serves on this committee and in the Congress, it is heartening to know that others share that commitment and are continuing his work. Please be assured that the chairman of this subcommittee will continue to work closely with you to expedite legislative action on the legislation that is pending before the subcommittees.

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[1] See app. 5.

As you know, nonproliferation is a very complex issue. I think Mr. Roth properly compared it to the Export Administration Act which has been a controversial and complicated issue before the subcommittee for the past 8 months. It is complex because it deals with technology; it involves a number of Federal agencies, and a delicate relationship between the two branches of Government. This is a policy not wholly confined to institutions of this country but involves other countries as well which are trying to enhance their own nuclear capability. Also we have the problem of making these controls and safeguards requirements universal so that we have an international approach to this deadly problem of nuclear development.

So, we have our work cut out for us, and I am hopeful that Mr. Roth and others on the committee will be cooperative as we attempt to seriously evaluate the legislation before us and, hopefully, are able to recommend something to the House floor in this 98th Congress.

ADMINISTRATION LIFTS BAN

Mr. Wolpe, the administration has lifted a ban on commercial reprocessing which was begun by the Ford administration and continued by the Carter administration, thus spanning both political parties. This is a serious new precedent for the export of reprocessing technology at a time when we are not clear what our own domestic policy should be with respect to this activity.

Do you know of instances where that technology has actually been exported and how would your legislation affect the export of technology? Is the criterion that you suggest sufficient to provide safeguards on the export of reprocessing technology?

Mr. WOLPE. The legislation would impose a flat ban on the export of components and technology to be used in the reprocessing. I cannot give you specific examples right now of the instances in which that exportation is already occurring. I do not have that at my fingertips.

Mr. BONKER. Are there any countries who have not signed the Nuclear Non-Proliferation Treaty that really have this capability?

Mr. WOLPE. My understanding is that there has been no such transaction yet. But the Japanese have expressed an interest in acquiring a reprocessing capability.

Mr. BONKER. I mean, who really has that capability beyond the United States, to supply reprocessing technology?

Mr. WOLPE. The French do; they have an expensive breeder program.

Mr. BONKER. What do they do with the wastes of reprocessing?

Mr. UDALL. Mr. Chairman, the Germans have one of the most ambitious high-level waste disposal programs. I visited that with some other people a couple of years ago.

The Germans have decided to settle for deep geologic storage and they are working on a program now that may get them there before anybody else.

Mr. BONKER. Well, then, if we have not clearly developed our own reprocessing capability and if the ban applies to our own ex-

ports of that technology, how effective will it be if other countries possess the capability but do not subscribe to a similar ban?

Mr. UDALL. Well, that is the job—if I may interject—of leadership in this country. We simply have to get tough with the nations that have this capacity and, working with our allies and friends and through international organizations, say we are not going to go that step. We are not going to go down that road. We are not going to provide nuclear technology to countries that now do not have it unless, at the minimum, they join the club, the nonproliferation club and sign the agreement.

Mr. BONKER. Well, I am not sure this administration even wants us in the club. It seems to me that we are going in the opposite direction. Instead of providing the leadership to encourage other countries to extend the prohibition on the export of reprocessing technology, we are actually lifting that.

What kind of signal is that sending to France, West Germany, and other countries?

Mr. WOLPE. Well, it is precisely that set of concerns that has motivated the introduction of both of the bills that are before the committee.

The point that you make, though, is an appropriate one: It is the same point that Mr. Udall was emphasizing just now. There is no easy way to discourage other countries short of our willingness to exercise that kind of leadership.

We have in fact embraced in both bills incentives as well as penalties for the transfer of nuclear technology—incentives in the form of provision, for example, of low enriched uranium where appropriate—so that the result is an approach that other countries can perceive as rational and in their own national economic interest and ultimately in their survival interest as well.

REPROCESSING TECHNOLOGY

One of the ironies about the reprocessing decisions that are being made by this administration is that they are occurring precisely at a time when it is becoming increasingly clear that the economics of reprocessing technology are not working out as had been originally contemplated. This is in addition to all of the concerns with respect to the implication of plutonium on the world economy.

Mr. BONKER. The same trend is now taking place with the nuclear industry in this country. More than the danger, or environmental or safeguards problems, it is the economic factor that is causing the closedown of plants.

Yes, Mr. Markey.

Mr. MARKEY. If I might interject. India is trying to develop reprocessing capacity. Argentina is trying to develop reprocessing capacity. Mexico wants reprocessing capacity. The French have it, the British have it.

During the Ford administration, only intense pressure on the French was able to block a sale of this technology to the Koreans.

So, it is something that clearly is a problem. It has been commercial interest that overly influenced our nonproliferation policy. We believe that, in spite of the Non-Proliferation Treaty, there have

been efforts to circumvent the spirit of this treaty through its loopholes.

Mr. BONKER. Mr. Markey, who are the leaders internationally in disseminating this technology? Is it the French?

Mr. MARKEY. Well, the French, of course, are known now as the "whores of international nuclear commerce." But they are only following an example which was set years before by our government, although we are not the worst now.

We have opportunity to give the leadership now to the rest of the world. That can only take place if we, in our dealings with the Argentines, with the South Africans, with others, now take into account our own breaking of the spirit of this treaty.

I do not think we are probably as bad as the French but we are dealing in degrees that are sometimes indistinguishable.

Mr. BONKER. Mr. Udall, you were here last session when Mr. Bingham's bill was reported out of the committee but, as I understand it, it was a respectful gesture to Mr. Bingham. There was an understanding that it would not be taken up on the floor. There appeared to be considerable opposition. That seems strange in view of the fact that Mr. Bingham's first bill was broadly supported in the Congress, and this is simply an effort to tighten up some of those loopholes.

Has the public's consciousness about this issue changed or are the political dynamics a little different? Or are the nuclear special interest groups so strong in the Congress that we cannot seem to strengthen an effort to contain this awful and frightful technology?

Mr. UDALL. I do not know, probably a combination of things have brought about the result. I think clearly the failure to bring up the Bingham bill in the closing hours without a serious attack on actually getting it passed was probably due to lack of support at that point.

I agreed with the strategy that Jack Bingham, after all these years of work, at least ought to have his bill reported out of his own committee.

But I think probably there is more support in a sense out in the public as they begin to focus on these issues and that maybe, if those of us who believe that there is great peril here keep fighting the fight, we may do it. We may get something done.

We were talking a minute ago here about the Korean airplane. You know B-52's—our major intercontinental bomber. For a long time, and it may still be the case, for a long time some of those B-52's crusing over international waters, making flights around the globe, actually carried nuclear weapons in their bomb bays.

INCIDENT IN SPAIN

There was a celebrated incident over Spain, a place called Palamaris, I think, where a B-52 went down and nuclear weapons sprayed their insides all over the countryside and it took years to track down every bit of radiated soil and track it down.

The outline, the silhouette of a B-52, is much more similar in my recollection than this intelligence plane that we had flying out of the Aleutians the night of the tragedy with 007.

What would this bunch of Soviet decisionmakers have done had the radar shown a B-52 or a configuration of an airplane similar to a B-52 entering Soviet airspace?

This does not deal directly with nonproliferation but it does in a sense. If the South Koreans get this potential, the North Koreans are going to want it and it is going to spread very rapidly.

If history teaches us anything with these terrible modern weapons, if they can be used, if they can be exploded, somebody is going to use them—some nut, some madman is going to put them to work.

I think one of the main jobs of our country in the time ahead of us is to get a handle on this nuclear proliferation. I think you are dealing here in this committee with one of the most important things that faces the United States and the whole world.

Mr. BONKER. Mr. Roth.

Mr. ROTH. Thank you, Mr. Chairman.

I too wish to compliment our three colleagues for their excellent statements. Maybe I could address a question to Mr. Udall or any one of the three.

In fact, it seems to me that nuclear proliferation is one of the really important if not the No. 1 problem that we are going to be faced with along with the population explosion in the Third World—something that we have to really consider.

I was surprised by your testimony. You seem a man that is always very careful with your thoughts, your words, your concepts. You seem to take a harsh line against the administration and you are not even running for President. [Laughter.]

Mr. UDALL. That is a relief to me and a lot of other people, I am sure. [Laughter.]

U.S. ROLE

Mr. ROTH. I want to ask you what I think would be a fair question, and I know you would answer it fairly.

Now, you have touched on it before. That is, just what can the United States do unilaterally to halt the spread of nuclear proliferation?

Mr. UDALL. Nobody is for unilateral disarmament or whatever the key words are. But I think we can do a bunch of things. We can show by example that we are going to try to cut down the risks around the world in every way we possibly can.

We are going to say to Brazil and some of the emerging countries, Argentina, people around the globe:

> You may take your business elsewhere but we are not going to have on our hands the responsibility for putting it in the hands of another 10 or 15, or 20 countries, or maybe some terrorist groups. We are not going to be responsible for that.

Every time one more nation gets the capacity or starts to build one of those things, we hopefully will by then have negotiated some kind of a treaty with the Soviets and, working through the United Nations or otherwise, we are going to say to those countries, "You are not going to go down this road and if you do, you are going to suffer economic consequences."

I hate to bring up the grain embargo and that is probably not an appropriate thing. But I think we have to lead out, take the moral

lead, get anybody that we can to go with us. Use the international organizations and say, "The United States of America is a peace-loving country and we are going to try to stop other nations from getting weapons by any legitimate means."

Mr. ROTH. What you are saying, I think, is very important. I think that is a laudible goal. But it seems to me when you have an undergraduate at the University of Wisconsin who can write the formula on how to make a bomb, how are you going to keep a country with any type of industrial and scientific base from acquiring the bomb?

Now, I wish we did not have the bomb but I am trying to look at this realistically. I do not think this bill is going to do much.

Mr. UDALL. Well, it is a beginning. We at least are trying to do something and it is a beginning, as I say.

Mr. WOLPE. If I just might add to Congressman Udall's comments.

There is still a far cry between that conceptual design and the development of weapons-making technology, which requires fuel to run the process through its end product.

The fact of the matter is, U.S. technology is sought after precisely because it is so well developed in this area. We therefore have the capacity to substantially slow down, to make substantially more difficult the acquisition of the technology.

We have already had some impact up to this point in those areas, and we have secured agreements on the part of other nuclear nations—including the Soviet Union—to cooperate in that regard.

We can slow down the process and, I think, with effective leadership we can really reverse the process that is occurring. It is not like the kind of imagery that is sometimes conjured up, that the genie is already out of the bottle, and there is nothing we can do about it.

Every additional bit of plutonium that enters the economy, every new decision to export technology; every nuclear facility that goes into operation in a country unwilling to accept international safeguards or to become signatory to the Nuclear Non-Proliferation Treaty, add all of those additional risks.

I think that we need to get away from this proposition that because some proliferation has already occurred, that we have no stake in attempting to stop or reverse that process.

Mr. ROTH. Well, how do you address the problem when people say, "Well, you know, if the French sell it, we lose complete control. But at least if we are in the act, we have some control, we have some leverage over this."

Mr. WOLPE. Well, the fact of the matter is, we are not using that leverage. If we are doing precisely what we do not want the French to do, then that is an illogical argument.

Mr. MARKEY. If I may interject here. What happens to us is this: In our rhetoric we in Congress and all around the world raise the issue of nonproliferation to the No. 1 position in terms of our concerns.

OTHER CONSIDERATIONS

But in reality, our short-term diplomatic, military, or commercial interests drive our long-term nonproliferation goals. So, the nonproliferation goals become secondary.

We should take the military, economic, diplomatic clout that we have and call in the French, the West Germans, the Swiss, the Belgians, and others into a room and say:

> Look, I know that all of us have said the right things in the past. But our actions do not match our words. But now the United States is cutting off all further aid for enrichment, reprocessing, highly enriched uranium that is being sold around the world. We are cutting off the export of sensitive nuclear material, such as heavy water.
>
> And we are going to engage you in a dialog here that will in fact require you to make some concessions or else there are going to be some penalties which are going to be inflicted upon you in terms of our commercial relations, our diplomatic relations, and other relations.

If we exercised such clout, then we could have some results. Otherwise, what we say is that we are basically an impotent nation, and I reject that.

I believe that if the President did elevate this issue to the level of importance which he says he has for it, if he did call on the French and others to support us, we would have some results.

But in order for our Government to have credibility, it must halt all further transactions in sensitive nuclear materials. At that point we have the credibility to go to the table or ask for a multilateral agreement. I believe that a bilateral verifiable freeze between the United States and Soviet Union has to be succeeded by a multilateral freeze on plutonium being spread around the world. But the precondition for our being able to do this effectively is our being able to restrict our own commerce in these technologies.

The only way in which we can do that is if we have a nonproliferation act that has some teeth in it.

Mr. ROTH. Mr. Chairman, I think all of our three colleagues made a very eloquent statement, eloquent remarks, for the administration's position and the Export Administration Act also. [Laughter.]

I just want to say this, that we had some experience with the French and our allies on the pipeline and it did not work out too well.

But I appreciate the comments of our three colleagues very much. I think that the work that you are doing, and I mean that sincerely from my vantage point, is one of the most important we can do.

If you have the solution to the problem, God love you. I feel, however, that the solution you propose is not going to work. But I want to say, I appreciate the work and energy you are putting into it because it is important. If nothing else, at least it will get the people to think about the problem.

Mr. BONKER. Mr. Barnes.

Mr. BARNES. Thank you, Mr. Chairman.

I also want to commend our three colleagues for their very important leadership on these issues. I am not really going to pose any questions. I would just like to take this opportunity—beyond saluting the three gentlemen—to insert in the record of this hear-

ing a couple of very timely indications of the importance of the testimony that we have just heard.

ARGENTINE NUCLEAR POTENTIAL

One is an article that appeared 3 days ago in the Baltimore Sun from the New York Times News Service entitled, "Argentine Nuclear Potential Stirs Concern." [1] It begins—I will just read the first couple sentences—"Intelligence specialists and nuclear experts are increasingly concerned that Argentina is developing the ability to build nuclear weapons and may actually be planning to build a nuclear bomb."

And an intelligence report now circulating among key officials, the Reagan administration contends that Argentine nuclear officials have "a secret plan" to divert a ton of uranium from under the noses of international inspectors and use the material to make nuclear fuel elements.

As has been noted in the testimony of our witnesses this morning, the Reagan administration just within the last couple of months, despite the fact that they apparently have these intelligence reports, decided to provide significant assistance to the Argentine nuclear program, which is not subject to international safeguards, and in fact the Government of Argentina has very specifically refused to sign the Nuclear Non-Proliferation Treaty. They do not make any secret of their position on this issue, they have refused to participate in international efforts to control the proliferation of nuclear technology.

I think this article simply underscores the significance of the testimony that we have heard this morning. So, I would ask that that be included in the record.

ARMS CONTROL AND DISARMAMENT AGENCY

Also because I think the way an administration operates its general arms control effort and the programs for controlling the spread of nuclear materials in the world is an important component of this whole issue, I would want to include in the record and bring to the attention of our colleagues on the committee an article from the July 1983 issue of Arms Control Today entitled, "The ACDA Scandal: A Critical Agency Becomes a Basket Case," [2] which goes into substantial detail about what has happened to the Arms Control and Disarmament Agency under the Reagan administration.

The budget has been slashed by one-third. Personnel have been thrown around in a way that has just destroyed morale, and we have lost some of the most professional people from the arms control program and the nuclear nonproliferation efforts. It is a tragic thing what the Reagan administration had done to the agency that has the principal responsibility for monitoring these issues and providing leadership on these issues.

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[1] See app. 6.
[2] See app. 7.

So I would ask, Mr. Chairman, that those two items be included in the record of the hearing and, as I say, I salute all three of our colleagues.

Mr. BARNES. I cannot sit up here without thinking how different some of these issues might be today had the gentleman from Arizona been elected President of the United States a few years back. We might not be holding this hearing in such a state of concern. We might be holding this hearing to monitor all of the tremendous progress that had been made on these issues which, as everyone has said this morning, are as important as anything facing mankind.

Thank you, Mr. Chairman.

Mr. BONKER. You wish to respond?

Mr. UDALL. I accept the nomination retroactively. Thank you. [Laughter.]

Mr. BONKER. Well, we will not be accepting nominations before this subcommittee.

Mr. Mica.

Mr. MICA. Thank you, Mr. Chairman. Just a few brief comments.

I also commend my colleagues and share their concern. I have shared with my colleague, Mr. Markey, my own family's concern, my wife's involvement on this issue.

More recently, one of my youngest children asked me about my votes on nuclear nonproliferation—and I hesitate in raising that because the Amy Carter remarks became a bit of a fiasco in the Carter campaign. But I think about that and I think about what my children have said.

I start to realize that although Carter may not have put it in the right terms at the right time, I really believe for the first time the younger generation is starting to look beyond some of the narrow issues about, "What is it all worth? What is it all for? What are you doing in Congress, daddy, if all of it means we are going to push a button someday?"

I share concerns about the most effective way to handle this. I know that there are differences of opinion. I will just say that I think my colleague, Mr. Wolpe, may have added the most ironic note, at least from my standpoint.

For years, we have talked about this issue and the possible destruction of mankind, and it has not turned many heads. But as you pointed out, the economics are not working now and that will probably turn a lot of heads. That is a sad commentary, unfortunately.

Thank you.

Mr. MARKEY. If I might just comment briefly.

The real problem that we have right now is that our Government is dealing with Argentina, India, China, and South Africa and none of these countries has signed the Non-Proliferation Treaty. They have not signed it, and we are entering into agreements with them to transfer nuclear materials to their country.

Now, we can read in the New York Times or the Washington Post about Argentina and its pursuit of nuclear weapons, and we may consider that simply a Third World issue that doesn't concern us.

But the next time there is a British fleet in the Falkland Islands and there is a dying regime, and there is a desperate leader trying to prop up his government for at least a couple more days, would he consider dropping a nuclear weapon out into the middle of an aircraft carrier fleet?

Consider for a moment, an Iraqi Government that is avowed to destroy Israel, consider for a moment, the Defense Minister of Syria who said that if he had three nuclear weapons he would drop one on Jerusalem, one on Haifa, and one on Tel Aviv?

Consider for a moment, Mu'ammar Qadhafi and others who are avowed in their goal of obtaining the Islamic bomb?

We have not much time left on this planet before we are going to have a holocaust. We are going to lose millions of lives.

The real test for our society is whether we are able to deal with this issue before that holocaust occurs. I promise you that, at the moment the nuclear bomb goes off—and it is going to go off in 1988, or 1991, or 1993, or sometime in that timeframe—then we are going to have a worldwide conference and we are all going to agree that proliferation is the No. 1 military, philosophical, theological, moral issue of all times. Then we are going to try to deal with this issue.

NONSIGNERS OF THE NPT

The test of our society is whether or not we are able to deal with this issue in anticipation of that. That is what this legislation is all about.

It just says that the United States will restrict its nuclear dealings with countries that are not even going to sign the Non-Proliferation Treaty, which establishes minimal standards for commerce in nuclear materials. The other alternative is to continue to cynically say, "Well, if the French are going to deal with them, we will deal with them as well," I say set a standard, try to abide by it, and then try to get other countries to abide by it—using every diplomatic, and economic, and military piece of leverage that we have to get them to agree with us?

I think until we have exhausted those options, we will not have exercised the leadership our country should exercise in this world.

Mr. BONKER. Thank you, Mr. Markey, that is an important point and, I think, is a good conclusion to today's hearings.

I would add that there are 23 countries that fall in that category of those who have not signed the Nuclear Non-Proliferation Treaty. These include Argentina, Brazil, India, Israel, Pakistan, and South Africa. Among them are the more irresponsible of those countries who would be most likely to use nuclear weapons, judging by their past experience; those who are engaged in hostilities because of border problems, as in the case of Pakistan and India.

Fortunately, there are some strong allies on the list of those who have joined the NPT, including Canada, Israel, Sweden, and Japan. I think this subject of NPT holdouts must be elevated to the highest level internationally, to get the more responsible abstainers to sign on so that we can encourage others to do likewise.

I would like to briefly announce the subcommittee schedule for the remainder of our deliberations of the issue. On October 18, we

will hear from private sector witnesses. On October 20, the Nuclear Regulatory Commission, plus those colleagues who were unable to make it today, will testify. Our November 1, we will hear from the two lead administration agencies with responsibility for nonproliferation policy, the Department of State and the Arms Control and Disarmament Agency. At a future date, possibly on November 15 another hearing involving the various departments that have some policy role on this subject.

If there are no other comments or questions from the subcommittees, the subcommittees will adjourn.

[Whereupon, at 11:10 a.m., the subcommittees adjourned, to reconvene at 10 a.m., on Thursday, October 20, 1983.]

PROPOSED AMENDMENTS TO THE NUCLEAR NON-PROLIFERATION ACT, 1983

THURSDAY, OCTOBER 20, 1983

HOUSE OF REPRESENTATIVES, COMMITTEE ON FOREIGN AFFAIRS, SUBCOMMITTEES ON INTERNATIONAL SECURITY AND SCIENTIFIC AFFAIRS AND ON INTERNATIONAL ECONOMIC POLICY AND TRADE,

Washington, D.C.

The subcommittees met at 10:30 a.m., in room 2172, Rayburn House Office Building, Hon. Clement J. Zablocki (chairman of the Subcommittee on International Security and Scientific Affairs) and Hon. Don Bonker (chairman of the Subcommittee on International Economic Policy and Trade) presiding.

Chairman ZABLOCKI. The subcommittees will please come to order.

This morning marks the second day of hearings on legislation to amend the Nuclear Non-Proliferation Act of 1978.

Today, the Subcommittee on International Security and Scientific Affairs and the Subcommittee on International Economic Policy and Trade will hear the views of private sector witnesses on H.R. 1417, the Nuclear Non-Proliferation Policy Act of 1983, and H.R. 3058, the Nuclear Explosives Control Act of 1983. Both pieces of legislation would replace the present differentiated system of export controls with a uniform system requiring full-scope safeguards as a condition for all U.S. nuclear exports.

Under one proposal, recipient nations would be able to receive concessionary prices for low enriched uranium fuel if they agreed to forgo nuclear fuel reprocessing and uranium enrichment.

In addition to these measures, the proposed legislation would give the Secretary of Defense an effective veto over nuclear exports and would set more stringent conditions on the reprocessing of U.S.-origin spent fuel. H.R. 1417 and H.R. 3058 would also prohibit the export of reprocessing components and would place further restrictions on the export of highly enriched uranium from the United States.

Cochairing this meeting is the gentleman from Washington, Mr. Bonker, who is chairman of the Subcommittee on International Economic Policy and Trade. I will call upon him for his statement and the introduction of our witnesses.

Mr. BONKER. Thank you.

I am pleased to join the chairman of the full Committee on Foreign Affairs in cosponsoring these hearings on the U.S. nuclear nonproliferation policy.

Several weeks ago, we had an opportunity to hear from the principal sponsors of the legislative proposals before the two subcommittees. Since that hearing, a related action was taken on the House floor during our consideration of the Export Administration Amendments Act of 1983, which I would note for the record. By a vote of 196 to 189, the House adopted an amendment offered by my colleague, Mr. Wolpe, which requires that all nuclear exports with potential weaponsmaking application be denied to countries that refuse to accept international full-scope safeguards. This amendment was based on provisions found in both of the proposals that are now pending before the subcommittees. We have not yet concluded our work on the Export Administration Act, but that provision is very much part of the bill now.

At this time, I would like to introduce the panel of witnesses who are appearing before the subcommittees this morning. I would ask that each of the witnesses summarize their statements and insert the full statement in the official record. We shall proceed with each witness offering their statements and then open for questions.

I understand that before introducing witnesses, our colleague, Mr. Wolpe, who is the principal sponsor of H.R. 1417, has an opening statement.

Mr. WOLPE. Thank you, Mr. Chairman.

I will not read the entire statement, but I would ask unanimous consent that it be entered in the record at this point.

Chairman ZABLOCKI. Without objection, so ordered.

[Mr. Wolpe's statement follows:]

PREPARED OPENING STATEMENT OF REPRESENTATIVE HOWARD WOLPE

Mr. Chairman, I am pleased to participate in this second joint hearing of the Subcommittee on International Economic Policy and Trade and Subcommittee on International Security and Scientific Affairs on legislation to amend the Nuclear Nonproliferation Act of 1978. I look forward to hearing the testimony of the four witnesses who will be participating this morning.

In the four weeks that have passed since the last hearing on this issue, two extremely important developments have occurred. Most notably, the House on September 30 approved an amendment I offered to the Export Administration Act which contained several provisions of the legislation currently before us. I believe this vote represented an important step in our effort to create a more rational, consistent nonproliferation policy.

My amendment would block three nuclear export authorizations which have been or shortly will be approved by the Administration. By approving it, the House expressed grave concern over current policies which allow the sale and retransfer of dangerous nuclear technology to nations that have not pledged to use it responsibly. Moreover, the amendment would apply the criterion that a nation accept fullscope safeguards on all its nuclear facilities as a pre-requisite for all future nuclear transactions. In supporting that language, the House offered a strong endorsement of the philosophy and direction of the legislation we are considering today.

A second important development was the release of a report on U.S. exports of dual-use, nuclear-related technology which was prepared by the General Accounting Office at my request and the request of former Chairman, Jonathan Bingham. The GAO report confirms the fact that the majority of dual-use exports present little or no proliferation risk. But other data in the report raise some serious questions. Those data, augmented by additional information supplied to me on specific nuclear end-use exports to non-NPT countries, support the conclusion that those exports represent a major loophole in our nonproliferation policy and a serious threat to our

national security. I believe the report adds further credence to the need for restrictions in dual-use exports such as those contained in H.R. 1417 and H.R. 3058.

Again, Mr. Chairman, I want to commend you and Chairman Zablocki for convening hearings on this subject of enormous importance. I appreciate the opportunity to further pursue the issues raised by the legislation before us.

Mr. WOLPE. I also would simply ask whether it is the committee's intention to meet once we move into the closed session today on the Nicaraguan subject, or whether we will have an opportunity to recess for the purpose of that debate.

Chairman ZABLOCKI. I hope we can complete this hearing this morning before the House goes into closed session concerning Nicaragua.

As I am a ranking member of the Select Committee on Intelligence, I need to be on the floor for this matter and will have to leave as soon as the gentleman from Michigan completes his statement.

Mr. WOLPE. Thank you very much, Mr. Chairman.

Let me say that the statement that I entered into the record draws attention to two developments that have occurred since our last hearing.

One is the amendment to which Chairman Bonker just referred, which was recently passed on the House floor. I think that amendment really embraces the philosophy of the legislation that is before this committee.

GAO REPORT

The second development is the release of a report on U.S. exports of dual use, nuclear-related technology, which was prepared by the General Accounting Office at the request of former chairman, Jonathan Bingham, and myself. The report confirms the fact that the majority of dual use exports present little or no proliferation risk but, at the same time, raises some serious questions.

Those data, augmented by additional information supplied to me on specific nuclear end-use exports to non-NPT countries, support the conclusion that those exports represent a major loophole in our nonproliferation policy and a serious threat to our national security.

I believe that the report adds further credence to the need for restrictions on dual-use exports, such as those contained in H.R. 1417 and H.R. 3058.

Again, I want to commend you, Mr. Chairman, and Chairman Bonker, for convening these hearings to fully assess the reaction to the legislation that is before this committee.

Thank you very much.

Mr. BONKER. Thank you, Mr. Wolpe. I would like to insert in the record at this point a statement by our colleague, Representative Roth.

STATEMENT OF REPRESENTATIVE TOBY ROTH

Thank you Mr. Chairman. This morning as we continue our examination of nuclear non-proliferation, I will be looking for answers to two important questions. First, how can the United States maximize its influence to promote the objectives of non-proliferation. Second, is there a technical dependence—or interdependence—which can be strengthened between the United States and other countries to provide a

greater assurance that they will abide by the principles of the Non-Proliferation Treaty.

I share many of the concerns which have been voiced by our previous witnesses. Both representatives from the Administration, this body, and from the private sector agree on the complexity of the problem of controlling nuclear related technology. We have before us a problem of diplomacy, national security, exports, and jobs. I believe it means that the United States must recognize that other countries may have nuclear policies and programs which differ from our policies and programs. It would be incorrect to attach improper motives to these foreign government policies without carefully considering the motivation for such policies.

I am deeply concerned, however, that certain countries are acquiring nuclear technology with the potential for weapons development free from any restraint by the major Western nuclear powers.

In developing new legislation, or perfecting the law already on the books, we must ask one basic question. Will new legislative remedies work? Will the change we consider make the world safer from irrational action or from potential blackmail and aggression? Will the changes work to make this a safer world?

I am looking forward with great interest to the remarks of our witnesses.

Thank you, Mr. Chairman.

Mr. BONKER. We shall now proceed with the witnesses at the table, the first being Mr. Daniel Poneman, the research fellow, Center for Science and International Affairs at Harvard University, and also author of "Nuclear Power in the Developing World" We shall then proceed with Mr. Dwight Porter, who represents the American Nuclear Energy Council and is the former U.S. Representative to the IAEA.

Then we shall hear from Paul Leventhal, who is president of the Nuclear Control Institute, a nonprofit educational organization.

Finally we will have Mr. Myron Kratzer testify. He is vice president of the International Energy Associates.

I think we are indeed privileged to have such a distinguished panel appearing before us this morning.

Mr. Poneman, we shall begin with you.

STATEMENT OF DANIEL PONEMAN, RESEARCH FELLOW, CENTER FOR SCIENCE AND INTERNATIONAL AFFAIRS, HARVARD UNIVERSITY

Mr. PONEMAN. Thank you very much, Mr. Chairman.

It is a pleasure to be here today to testify on this important issue. I will briefly summarize my remarks.

I agree with the spirit of the two bills that are now before you. The present administration has abandoned the prudent nuclear export policies of its predecessors by permitting American nuclear assistance to go to those who least deserve it.

In return for yielding to the nuclear requests of such non-NPT parties as Argentina, India, and South Africa, the administration has failed to obtain a single open commitment not to produce or use nuclear explosives.

Apparent appeasement broadcasts to nonproliferation treaty parties that the U.S. Government blithely takes them for granted while saving its special favors for those who most flagrantly flout the NPT regime.

While the present nuclear export policies appear dangerously lax, however, I believe that better enforcement of existing law is wiser than adding new legislative restrictions, for four reasons.

First, all nuclear exports are not equally sensitive. Heavy water technology, for example, is less sensitive than enrichment and re-

processing technology. I do believe that full-scope safeguards should be the U.S. objective, but to require acceptance of full-scope safeguards as a precondition for all U.S. nuclear exports is excessive.

Faced by this all or nothing choice between acceding utterly to United States desires before obtaining even a zero-power, low-enriched uranium test reactor, too many governments would simply shop elsewhere.

Second, a clear distinction should be drawn between governments that are entitled to U.S. assistance and those that are not. Discrimination is unavoidable. A policy either treats equals differently or unequals the same. Either way, someone is bound to be offended.

A good policy discriminates on a sound basis. It is reasonable to discriminate against governments that reject the NPT, that insist on the right to conduct peaceful nuclear explosions, and that engage in secret programs to obtain fissile material.

The law as it stands is sufficient to bar exports to such governments. The new bills reach further, however, restricting certain exports to all nations. This well-intended effort to achieve a nondiscriminatory policy is ultimately untenable and counterproductive; untenable because countries like Japan and the Euratom members will be able to pursue reprocessing with or without U.S. help; counterproductive because a threatened U.S. cutoff of its fellow nuclear suppliers will alienate those governments whose cooperation is essential to any successful nonproliferation policy.

COMMERCIAL CONSIDERATIONS

Third, within the Non-Proliferation Treaty and Non-Proliferation Act ground rules, the United States should remain as commercially engaged in the international nuclear market as possible. Export restraint accomplishes little unless there are exports to restrain.

The days of unbridled U.S. clout in the world market are gone forever, and unless we protect our much reduced but still significant market share, our promotion of responsible export policies by good example will evaporate.

It would not be worthwhile to extend retroactive restrictions beyond those in the Non-Proliferation Act at this time. On the loss side, the damage to the U.S. commercial reputation from retroactive change in the ground rules would be grave; on the gain side might be little. The other nuclear suppliers have not even gone as far as the original 1978 act in export restraint.

A toughened version at best would win few converts and at worst could justify a wholesale rejection of the U.S. approach as capricious and unilateralist. Moreover, if the new provisions are circumvented through Presidential waiver, as has happened in the past with the Tarapur fuel supply, then we would have gained little for our squandered image of commercial responsibility.

REWARDS

Fourth, U.S. nuclear export policy should reward others' commitments to nonproliferation. The proposals and authorizations in sections 8 through 10 of H.R. 3058 are steps in the right direction.

If the enrichment discount is offered, though, it seems to me that the condition—forgone reprocessing—is too strict. I would urge that the discount be offered to all NPT parties, perhaps limited to those who would qualify for special trade treatment under the General Agreements on Tariffs and Trade.

Such a discount would strengthen the Non-Proliferation Treaty without risk, since low-enriched uranium is not an immediately weapons-usable material.

That brings me to a final argument on rewards. Wherever possible, rewards should be limited to those governments that accept formal commitments, such as the NPT, Treaty of Tlatelolco, and full-scope safeguards.

The NPT requires special attention. As more countries become technologically able to produce nuclear weapons, the NPT will become the main obstacle to nuclear proliferation. Unfortunately, the promises of articles V and VI concerning peaceful nuclear explosions and arms control have already petrified.

If we do not breathe some life into article IV's promise of "the fullest possible exchange" of peaceful nuclear assistance, the sense of betrayal by NPT parties that they have been duped into giving up their nuclear weapons option in exchange for unfulfilled promises may begin to tear at the fabric of the treaty. Allowing the Non-Proliferation Treaty to unravel would be the biggest mistake of all.

Thank you very much for the opportunity to testify on this issue.

Mr. BONKER. Thank you, Mr. Poneman. We appreciate your brevity.

[Mr. Poneman's prepared statement follows:]

PREPARED STATEMENT OF DANIEL PONEMAN, RESEARCH FELLOW, CENTER FOR SCIENCE AND INTERNATIONAL AFFAIRS, HARVARD UNIVERSITY

Mr. Chairman, my name is Daniel Poneman. I am a Research Fellow at the Center for Science and International Affairs at Harvard University, and the author of Nuclear Power in the Developing World. It is a pleasure to testify today on this critical issue.

I agree with the spirit of the two bills now before you. The present Administration has abandoned the prudent nuclear export policies forged under Presidents Ford and Carter, by permitting American nuclear assistance to go to those who least deserve it. The governments of Argentina, India, and South Africa have steadfastly opposed international efforts to restrict the spread of nuclear weapons. Worse yet, in return for yielding to the nuclear desires of these non-NPT parties, the Reagan Administration has failed to obtain a single open commitment not to produce or use nuclear explosives. This is myopic and weak policy. Perhaps there are unreported nonproliferation codicils to these arrangements. But the apparent appeasement broadcasts to Non-Proliferation Treaty parties that the U.S. Government blithely takes them for granted while saving its special favors for those governments who most flagrantly flout the NPT, the Non-Proliferation Act, and other accords. In the long run, this perverse policy can only drive more nations to the intransigence of the NPT rejectionists.

While the present nuclear export policies appear dangerously lax, however, I believe that better enforcement of existing law is wiser than adding new legislative restrictions.

To support this conclusion, I will analyze the two bills in light of the four central elements in a sound nuclear export policy.

First, technologies and materials should be graded according to their relative military and civilian significance. Pure plutonium, highly enriched uranium, and the facilities to produce such fissile materials are critical to weapons production but not to electricity generation. Light water reactors pose little military threat.

These bills rightly single out those technologies related to the production of plutonium and highly enriched uranium. Section H.R. 3058 goes too far, however, in its blanket proscription on the export of heavy water production technology. Heavy water is essential to the natural uranium fuel cycle, and is less directly applicable to weapons production than are the other two technologies.

The request to import the technology to produce heavy water can be based on legitimate desire for energy independence. Heavy water production technology should not be provided to non-NPT parties and, if exported, should be subjected to stringent safeguards. But a total embargo also would apply to--and offend—NPT parties with a legitimate desire for that technology.

All nuclear exports are not equally sensitive. Therefore, although full-scope safeguards should be the ultimate U.S. goal, to require their acceptance as a pre-condition for all U.S. nuclear exports is excessive. Faced by this all-or-nothing choice between acceding utterly to U.S. desires before obtaining even a zero-power, low-enriched uranium research reactor, too many governments would simply shop elsewhere. A graduated scale would be wiser, matching stronger nonproliferation commitments to more sophisticated technologies. This approach, based on incentives rather than on ultimatum, could attract governments to American technology when making their first choices. That in turn would help U.S. efforts to urge the acceptance of stronger commitments in exchange for greater assistance.

Second, a clear distinction should be drawn between governments that are entitled to U.S. assistance and those that are not. Discrimination is unavoidable. A policy either treats equals differently or unequals the same. Either way, someone is bound to be offended. A good policy discriminates on a sensible basis. It is reasonable to discriminate against governments that reject the NPT and other non-proliferation commitments, that insist on the right to conduct peaceful nuclear explosions, and that engage in secret programs to obtain fissile material. The law as it stands is sufficient to bar exports to such governments.

The new bills would reach further, however, baldly restricting certain exports to all nations. This well-intended effort to achieve a nondiscriminatory policy is ultimately untenable and counterproductive: untenable because countries like Japan and the Euratom members will be able to pursue reproecessing with or without U.S. assistance, and most likely would receive waivers under these bills as they have under the Non-Proliferation Act; counterproductive because a threatened U.S. cutoff of its fellow nuclear suppliers will alienate those governments whose cooperation is indispensable to any successful nonproliferation policy. For this reason, I support the principle of advanced consent for reprocessing and plutonium use for specified countries, provided that the consent is conditioned on acceptance of strict nonproliferation standards, such as the NPT or full-scope safeguards.

Making explicit these distinctions among technologies and governments could greatly clarify U.S. Policy.

Unsubsidized access to all but the most sensitive technologies should be granted equally to any government that formally forswears nuclear weapons. No new nuclear assistance at all should be provided to governments that seek dangerous capabilities while refusing to cooperate with international nonproliferation efforts. These groundrules cover the most and least worrisome governments and technologies. In between, as a government's nonproliferation credentials improve, so should its access to nuclear technology.

Third, within these groundrules, the United States should remain as commercially engaged in the international nuclear market as possible. Indeed, without commerce, export guidelines become irrelevant. A policy of export restraint accomplishes little unless there are exports to restrain. The days of unbridled U.S. clout in the international market are gone forever, and unless we protect our much reduced but still significant market share, our promotion of responsible export policies by good example will evaporate.

Specifically, U.S. nuclear exports can promote nonproliferation objectives in two important ways. First, they provide the United States with leverage over the nuclear activities of its trading partners. This leverage can be turned against us, as when U.S.-supplied fuel became hostage to Indian threats of reprocessing, but nevertheless can be useful. Second, the United States is a powerful and in some ways unique competitor. It can not only act as a leader in promoting responsible export policies but also crowd out competition. For example, the United States retains a monopoly the world supply of highly enriched uranium (HEU). As dangerous as that material is, it would be better for the United States to continue to supply it under existing commitments than to phase out HEU exports completely and thereby encourage Urenco or Eurodif to begin producing and selling it with far less restraint than has

the United States. That's why I fear that the HEU restrictions contained in the bill are too strict.

General support for United States nuclear exports benefits the economy as well as national security. It is needed, also, to encourage American industrial cooperation in United States nonproliferation policy.

For the United States to stay in the leading ranks of nuclear suppliers, several things are required. It must be—or become—a reliable supplier. Reliable does not mean unprincipled, and cautious export policies are fully compatible with reliability. But it does require predictability. In particular, U.S. export laws and regulations should avoid retroactive restrictions, so that importers will not find their existing contracts unexpectedly jeopardized over and over by more and more restrictions and conditions.

Similarly, U.S. policies should be cooperative rather than unilateralist wherever possible. To the extent that the rules of the game become obsolete and contract modifications unavoidable, adjustments should be sought first through bilateral and multilateral negotiations, rather than through unilateral fiat.

The Nuclear Non-Proliferation Act of 1978 (NNPA) broke both rules: it increased the restrictiveness of U.S. export policy, and it did so through domestic legislation rather than diplomatic consensus. This required renegotiation of agreements with Euratom, India, and Japan. As a result the United States lost some commercial credibility in foreign markets. But it gained credibility in its efforts to retard nuclear proliferation, and promoted more responsible export policies worldwide.

It would not be worthwhile to add new, retroactive export restraints now. On the loss side, the damage to the U.S. commercial reputation from yet another major change in the rules would be grave. On the gain side would be little. The other nuclear suppliers have not gone even as far as the original NNPA in export restraint. A toughened up version at best would win few converts and at worst could justify a wholesale rejection of the U.S. approach as capricious and unilateralist. Moreover, the NNPA is not even enforced in its present form. If the new provisions are also circumvented through Presidential intervention, as happened with respect to Tarapur fuel supply, then precious little good would come of our squandered commercial reliability.

I would draw a line between retroactive and prospective amendments to the NNPA. Retroactive amendments should be avoided. They include the additional conditions on the approval of reprocessing and export of highly enriched uranium. Prospective amendments merely plug technical loopholes in the original NNPA, and should be supported where they are necessary to the Act's original intent. The inclusion of component exports and substitutions or exchanges under the Act, and its extension to Department of Commerce and Department of Energy Licenses, and reasonable steps in this regard.

Fourth, U.S. nuclear export policy should reward others' commitments to nonproliferation. The proposals and authorizations in Sections 8, 9, and 10 of H.R. 3058 are steps in the right direction. I am not confident though, that the enrichment services discount will persuade governments to forego reprocessing. The present glut of enrichment capacity in the world market has so depressed prices everywhere that the U.S. discount may not be especially attractive. Moreover, unless and until the world nuclear reactor market revives, enrichment discounts will remain a side issue.

If the discount is offered, though, it seems to me that the condition—foregone reprocessing—is too strict. In accordance with my proposal to gear incentives to commitments, I would urge that the discount be offered to all developing country NPT parties. This preference could be modeled on the Generalized System of Preferences contained in the Trade Act of 1974 (19 U.S.C. § 2461), in order to provide the discount in an inoffensive way to those countries of greatest nonproliferation concern, without subsidizing the rest. Thus organized, the discount program would strengthen the NPT without risk, since low enriched uranium is not a weapons-usable material.

That brings me to my final argument on rewards. Wherever possible, they should be limited to adherence to formal commitments, such as the NPT, Treaty of Tlatelolco, and full-scope safeguards. The NPT requires special attention. The promises of Articles V and VI, offering peaceful nuclear explosion assistance and arms control, have already petrified. If we do not breathe some life into Article IV's promise of "the fullest possible exchange" of peaceful nuclear assistance, the sense of betrayal by NPT parties that they have been duped into giving up their nuclear weapons option in exchange for unfulfilled promises may begin to tear the fabric of the Treaty. Their ire would be sharpened by the irony of being treated by the nuclear suppliers as poor cousins, when compared to the NPT holdouts. If too long taken for granted, the NPT could unravel.

Every time we link an incentive—such as this enrichment discount—to some other standard, we undermine the NPT. This is feckless, because it merely adds another layer—and not an overwhelmingly attractive one at that—to the panoply of U.S. export criteria. It is also tragic, because the NPT and the related International Atomic Energy Agency system remain the cornerstone of the global norm that the spread of nuclear weapons is a bad thing. As more and more countries become technologically able to produce nuclear weapons, that norm will become the main obstacle to nuclear weapons proliferation.

In conclusion, I believe that the U.S. Government has the legislative authority it needs to combat proliferation. The legislation could be strengthened, but retroactive conditions might not be worth the alienation of foreign governments, especially since presidential waivers could circumvent these bills just as they have under the NNPA. Better than the establishment of new restrictions, would be greater efforts by the Reagan Administration to enforce the spirit rather than evade letter of the NNPA, and to persuade Euratom members to enforce the existing supplier guidelines.

Should the Administration prove unwilling to take these modest steps, then perhaps the best response would simply be the extension of NNPA licensing criteria to components and to the Departments of Commerce and Energy. Ultimately, however, the best way to prevent nuclear export abuse will not be to plug the dyke of restraints piecemeal, but rather systematically to reward respect for and isolate rejection of the international norms against proliferation.

Thank you very much for the opportunity to testify on this important issue.

Mr. BONKER. We shall now turn to the vice president of International Affairs at Westinghouse, Mr. Dwight Porter.

Mr. Porter, it is a pleasure to have you this morning.

STATEMENT OF DWIGHT J. PORTER, VICE PRESIDENT, INTERNATIONAL AFFAIRS, WESTINGHOUSE ELECTRIC CORP., ON BEHALF OF AMERICAN NUCLEAR ENERGY COUNCIL

Mr. PORTER. Thank you, Mr. Chairman.

To begin, may I state unequivocally that the the U.S. nuclear industry supports a concept of full-scope safeguards. I think I speak for all of the industry when I say that. The world needs this measure of confidence in its nuclear commerce, and our industry would be happy to operate under these ground rules, if they can be achieved. Therein lies the problem.

Unfortunately, the United States, of course, requires the application of full-scope safeguards in all nations to whom it makes significant nuclear exports. Most of the other reactor vendors do not do so, requiring instead only that safeguards be applied on that which they export, material or fuel.

The net effect of this distinction is that it provides other nations a nuclear relationship with a large group of countries, such as Argentina, Brazil, Israel, and South Africa, to mention some, while excluding a significant U.S. commercial or official relationship with the same countries in the nuclear area.

The exercise of moral leadership and continuous pressure by the United States, including the passage of the Non-Proliferation Act in 1978, has not altered this situation in the last 8 years. Neither does it appear that any change in the status quo is in the offing, certainly not as a result of existing or proposed U.S. legislation.

I would like to highlight a few fundamentals in a much shorter period than would be the case if I gave my full testimony.

First, let me say that the industry does not feel that the United States needs additional legislation in the area of nuclear exports. I think the world by and large has learned to live in a sense of equi-

librium with the Non-Proliferation Act, with the tough conditions of that act.

Those countries that know they can do business with us have now accepted doing business under the provisions of that act, even if they are not happy with it all. Those countries which cannot do business with us in any material way in nuclear matters also know that they cannot do business with us.

So, I am not suggesting that the industry intends to change those ground rules. I am suggesting that the imposition of new ground rules through new legislation would be a major blow to the equilibrium that has now been reasonably well established under the provisions of the Non-Proliferation Act.

I submit that if we continue to lose our nuclear industry share of the world market our Government will no longer be in a position to play a leadership role in securing a sensible international consensus in nonproliferation matters.

OTHER COMPETITION

Two quick points must be made here. I think it is manifestly clear that U.S. technical dominance in nuclear power is being challenged from many sides. No country has a monopoly in the nuclear energy field. Other supplier governments more interested in exports than the United States become sales partners of their nuclear industry, applying political leverage and offering attractive financing in order to sell nuclear reactors overseas.

I think it is very important to understand that Japan, for example, has targeted the nuclear power industry as one of its major export markets of the future and intends to achieve export dominance in the next decade. This is Japanese industrial policy.

The U.S. industry, on the contrary, when it attempts to maintain jobs and hold on to its engineering talent by exporting nonsensitive goods or services which are widely available from other sources in the world marketplace, is often criticized for its efforts.

Perhaps the unkindest cut of all is the test of foreign availability, which the Congress now correctly seems to wish to apply to nonnuclear exports, such as the Siberian pipeline components. This is now declared by some to be an inadmissible principle even in the case of those nuclear exports which are, by definition, nonsensitive and which do not contribute to the nuclear weapons potentials of other countries.

The fact is that the U.S. nuclear industry faces direct foreign competition in all of its potential nonsensitive export sales, whether of goods or services. The industry sees no compelling foreign policy or financial reason why our Government should pass legislation which hands such export business automatically to our foreign competitors, whose governments apply different rules—specifically not requiring full-scope safeguards in their nuclear exports.

The U.S. competitive position in international nuclear commerce has declined substantially. One statistic perhaps quantifies the loss best. The Department of Energy, in its overseas sales of uranium enrichment services, has seen its share drop from a near monopoly in the mid-1970's to only about 33 percent today. There are many reasons for this; not the least is the image of unreliability of

supply, which stemmed from the Non-Proliferation Act and the retroactive constraints that were applied in that act.

It should come as no surprise to us that other sovereign governments, many of whom feel strongly about the principle of sanctity of contracts, reacted negatively to this evidence of U.S. unreliability.

However, as I said, the world has begun to learn how to live with the Non-Proliferation Act. In the 5 years since the passage of the act, the U.S. Government has worked out with other governments reasonably sensible relationships.

When they have not, obviously, other governments have turned to non-U.S. sources. I will give examples of that, Mr. Chairman, and then I think I will have completed basically what I wanted to say.

NON-U.S. SUPPLIERS

The first example: When India a few years back could get no heavy water from Western sources, the Soviets promptly filled the breach. They, of course, got safeguards applied to the material.

The second example: If South Africa does not conclude the maintenance service contract on its two French-built reactors with U.S. firms, it will do so with the French or the Germans. This, of course, was the essence of the debate which you had on the House floor the other day.

Incidentally, the publicity attendant to this proposal for a South African contract has been quite misleading. It has been labeled as a nuclear export which will contribute to South Africa's bomb-making potential. It is nothing of the kind; not an export, not technology transfer, not sensitive in any sense. The reactors are there, they are under international safeguards, which the French insisted on when they sold the reactors. The reactors will soon go critical and start running.

The maintenance service contract is just that; a contract to help the local utility management be sure that the reactor is run safely and efficiently. If there had been any nonproliferation considerations in this matter, U.S. firms would, I am certain, not have received permission to bid.

NUCLEAR MYTH

My last point: There has been a great deal of misconception and confusion developing with respect to constant reiteration of the theme, I would say myth, that nuclear power reactors are the easy way to make a bomb. This is patently not true. Reactor-grade plutonium is not weapons-grade plutonium, even though the phrases are now often and deliberately used interchangeably.

I quote from a study of "International Nuclear Power" put out by the American Nuclear Energy Council in July 1983:

> Commercial nuclear powerplants are not the starting point for the development of a bomb. In fact, the opposite has been the case. Prime examples are the programs in the United States and China. In the United States, it took six years from the development of the world's first bomb until electricity was generated from nuclear fission. Today, China still does not have commercial nuclear power nearly 20 years after it first exploded a bomb.

Countries now possessing nuclear weapons did not acquire them by diverting material from commercial nuclear power facilities. The plain fact is that commercial reactor-grade plutonium is poor material for weapons.

Having said that, the industry still firmly believes that U.S. export constraints are needed in controlling nuclear exports to questionable countries. We certainly don't quarrel with what the other witnesses said, that discrimination makes sense in foreign policy when it is applied in a way that does not damage the U.S. interests more than it damages the interests of those to whom it is applied.

Thank you, Mr. Chairman.

Mr. BONKER. Thank you, Mr. Porter.

[Mr. Porter's prepared statement follows:]

PREPARED STATEMENT OF DWIGHT J. PORTER, REPRESENTING THE AMERICAN NUCLEAR ENERGY COUNCIL

I am pleased to be able to appear before you today on behalf of the American Nuclear Energy Council, to give some views of the nuclear industry on proposed legislation to amend the Nuclear Non-Proliferation Act of 1978 (NNPA). Because of the fact that other witnesses can more appropriately cover certain aspects, it is not my intention to address in detail all of the specific provisions of the two legislative proposals which have been introduced on this subject—H.R. 1417 and H.R. 3058 (the Nuclear Explosives Control Act of 1983). Rather, I would like to first compare the two basic approaches normally considered in efforts to reduce risks of global nuclear weapons proliferation and then to comment on some of the major objectives which both of these bills share in common.

We all have serious concerns over the potential consequences of proliferation and the threat which it poses to the future of the human race. The U.S. nuclear industry fully shares these concerns. However, there are basic differences in the two fundamental schools of U.S. thought as to how this problem should best be approached. The first, epitomized in the proposed legislation, centers around a policy based on U.S.-imposed, inflexible, unilateral restrictions and denials of nuclear materials and technology, while the second attempts to reach this goal through seeking a responsible consensus for peaceful nuclear cooperation among suppliers and recipients, within the broad framework of overall U.S. foreign policy objectives. The latter approach involves slow and persistent diplomatic effort, achieving progress by persuasion rather than legislative fiat.

I personally feel that the latter approach is the only one with a chance of success. This view is based, among other things, on my experience during a substantial period of service as U.S. Resident Representative to the International Atomic Energy Agency in Vienna. It is a view shared by most other nuclear industry and governmental people who have been on the diplomatic firing line in dealing with non-nuclear proliferation matters. Since this position, no matter how strongly and sincerely held, is generally perceived as being the more profitable to the U.S. nuclear industry, it leaves me—and other industry people of like conviction—open to the frequent charge that our position should be discounted since we appear to be putting industry commercial success ahead of what is obviously an awesome issue for man-kind. I can assure you that nothing could be further from the truth.

Our feeling is based on the premises: (1) that the commercial success of the U.S. industry provides political clout to our government in pursuing diplomatic inititives to control nuclear proliferation, and (2) that the nuclear industry must operate under a reliable set of agreed international ground rules if it is to achieve competitive equality and commercial success.

In listening to those who would further tighten the already severe controls mandated by the Nuclear Non-Proliferation Act, I constantly hear three words, which I will call the "three-L's"—loopholes, leadership and leverage. I would like to comment on each of these.

"Loopholes"—I don't believe that enough credit is given to the concept of graduate sensitivity embodied in the NNPA, when charges are made that it has numerous loopholes. Basically, this Act accepted that there were various levels of proliferation sensitivity and foreign availability among nuclear material, equipment and technology exports and attempted to apply the levels of control accordingly It was not through an oversight that more restrictive controls were applied to the export of

a complete nuclear power reactor than to a tank or valve for nuclear use which was essentially identical to that used, for example, in the petroleum industry. Differentiations of this nature—including foreign availability—are a fundamental feature of all U.S. export controls, such as those in the Export Administration Act. I can see no rational basis for requirieng the same export criteria to be met for, say, a massive pressure vessel meeting exacting quality assurance standards and a one-inch globe valve not much different than that which could be purchased at your local hardware store. Yet, the proposed legislation attempts to lump all components together (including off-the-shelf items) in what would be a practically unforceable export control regime.

One of the major features of the NNPA was the logical distinction made between (1) "sensitive" technology which might assist, even if indirectly, in the development of a weapons capability—that is, enrichment, reprocessing and heavy water production—and (2) such less-sensitive technology as light-water reactors and slightly-enriched uranium fuel fabrication. In the five years since passage of the NNPA this distinction seems to have become increasingly blurred, perhaps because of the emotional level of the debate. In this conneciton, one of the recurring problems we as a nation have in discussing non-proliferation legislation is the misconception and confusion that have developed through constant reiteration of the theme that nuclear power reactors are the easy way to make a bomb. This is patently not true; "reactor-grade" plutonium is not "weapons-grade" plutonium, even though the phrases are often used interchangeably.

To reinforce this point, I quote from a study of "International Nuclear Power"; put out by the American Nuclear Energy Council in July 1983:

Commercial nuclear power plants are not the starting point for the development of a bomb; in fact, the opposite has been the case.

Prime examples are the programs in the United States and China. In the United States, it took six years from the development of the world's first atomic bomb until electricity was generated from nuclear fission. Today, China still does not have commercial nuclear power nearly 20 years after it first exploded a bomb.

"Countries now possessing nuclear weapons did not acquire them by diverting material from commercial nuclear power facilities. The plain fact is that commercial reactor-grade plutonium is poor material for weapons."

"Leadership"—Leadership implies followers. You can't be the leader of a musical organization if you insist on having a marching band when those with the instruments will play only soul music. It strikes me that this is a reasonably apt analogy for where we stand in global non-proliferation leadership today. We've taken the unilateral position—often even without consulting other major nuclear supplier and user nations in advance—that ours is the right and only way to prevent proliferation and that, unless other countries accept this and follow our "leadership", our paths will part. We continue to do this while ignoring the conclusions of an international study group (INFCE) which was set up by President Carter to try to reach an international consensus on this complex issue.

Time has demonstrated that few sovereign countries are willing to accept such a U.S. dictate. As a result, we seem to be increasingly heading in opposite directions. This does not strike me as U.S. leadership. It is particularly unfortunate, since most countries share our concerns and wish to achieve and support a strong international consensus opposed to nuclear weapons proliferation. Many of these nations are fully capable of obtaining a nuclear weapons capability on their own, but have formally rejected the concept. These are largely the same nations who wish to consider using plutonium for energy purposes, but who would be discriminated against for doing so if this proposed legislation is passed.

"Leverage"—The U.S. no longer has even a near-monopoly on nuclear materials, equipment or technology. In fact, in some areas such as reprocessing and the breeder, our technology level has fallen behind that of several nations. Thus, any efforts to exert leverage exclusively within the area of nuclear exports are doomed to failure from the start.

It has been suggested that the United States could use other forms of leverage—political, economic or even military—to demand acceptance, at least among western nations, of our non-proliferation policies. Such a view greatly overestimates the effectiveness of such leverage, even if we were prepared to make non-proliferation our premier foreign policy objective. It even could backfire in much the same manner as our efforts to stop construction of the Soviet natural gas pipeline by our allies in Western Europe. It just would not work. In fact, it was tried in the early days of the Carter administration, and U.S.-West German relations in nuclear energy matters were set back to a degree which is still felt today.

As an alternative, I would like to propose that we consider conducting U.S. non-proliferation policy pursuant to a different set of principles, which I will alphabetize as the "three R's"—responsibility, reliability, and reality. I will attempt to explain my conception of each of these principles.

"Responsibility"—Webster defines responsibility as "moral, legal or mental accountability". In passing the NNPA, the United States in effect abrogated several signifcant provisions of our international nuclear agreements for peaceful cooperation, even though the foreign parties continued to be in full compliance with these agreements. Furthermore, before they could initially be brought into force these same earlier agreements had also lain before both houses of the Congress, which then had full opportunity to prevent their execution. No matter how well-intentioned this unilateral action was, it was not good foreign policy.

Other nations have questioned the wisdom and moral leadership of the U.S., which always has stressed the sanctity of its commitments, in taking such unilateral action. How can we call for responsible behavior on the part of other nations when we fail to act responsibly overselves? The passage of this proposed legislation would repeat this earlier mistake. It would apply additional unilateral constraints, violating earlier agreements made—in most cases, with some of our closest friends and allies.

"Reliability"—I fully support this Administration's desire for the United States to regain its reputation as a reliable nuclear supplier. The NNPA itself highlights this as a major element of U.S. non-proliferation policy. Unfortunately, having taken unilateral actions such as those I have just mentioned, it will never again be possible to reestablish the position which we had until about the middle-1970's, when the AEC unexpectedly "closed the order book" on enrichment services at the same time that the world was going through a serious energy crisis and looking toward nuclear energy to help alleviate that crisis. Subsequent actions taken in the name of "non-proliferation" have further eroded confidence in our reliability. What has been done cannot be undone, but continuing efforts to "fine-tune" U.S. export policy every few years will quickly make us the nuclear supplier of last resort for other nations' civil nuclear power programs.

"Reality"—I have had some difficulty in deciding whether my third "R" should be "Reality" or "Rationality". Nonetheless, I believe that both convey the same basic message. To take reality into account, U.S. non-proliferation policy should reflect the fact that we no longer possess any unique capabilities in the area of civil nuclear power and its fuel cycle. Whatever advantage we may still have over others lies, for example, in greater experience and in our ability to accomplish the task more efficiently and/or more economically. But U.S. denial will not deprive the customer of his ability to get the job done if he considers it important—whether it's building a reactor, or even an enrichment plant or reprocessing facility. As examples, seven or eight nations how have reprocessing facilities larger than pilot-plant scale; at least seven others have developmental-size plants. Although it has not made a final decision to proceed at this time, Australia chose British-Dutch-German centrifuge technology for its proposed enrichment plant over that offered by France and the United States. Recent articles in Forbes and Business Week highlight the fact that Japan intends to dominate the reactor export market of the 1990s. This export opportunity has been officially targeted by the Japanese as an element of their industrial policy. Japan will be challenged vigorously by a French government which hopes to dominate the market for at least the balance of this decade.

In the real world, Japan and France have adopted industrial policies which seek dominance of the world nuclear market. The U.S., on the other hand, seems to be considering through this proposed legislation, a further withdrawal from this same market. I find it hard to understand how this can be viewed as contributing to a safer and more non-proliferating world.

Another aspect of "reality" is the recognition that all equipment and technology used in nuclear plants does not require the same degree of technology, manufacturing ability, and know how. Accordingly, then, it makes common sense to relate export controls to the difficulty which the purchaser would encounter in obtaining the particular part of technology elsewhere, including developing it himself. We can never operate on the theory that knowledge in this area stops at the U.S. border, and can be turned on and off by legislation. In the near future, many more countries will join the growing list of reactor and reactor component manufacturers. Some will be countries such as India and Argentina, the new future suppliers of nuclear equipment and technology. We as a nation are not in a good position to maintain an effective dialogue with these "new" suppliers.

Among the negative side-effects of ever-increasing restrictions of the type proposed in these bills for the transfer of non-sensitive nuclear technology has been the

reluctance of potential foreign licensees of such U.S. technology, even in those industrialized nations which basically accept U.S. non-proliferation objectives, to enter into licensing agreements with U.S. industry. In fact, such unilateral actions may lead to termination of existing licenses by the licensees, which would totally nullify the attempt in the ligislation to control the retransfer of U.S.-origin technology through these licensees.

The U.S. nuclear industry generally has interpreted the provision of the Atomic Energy Act which requires an authorization by the Secretary of Energy (concurred in by the Department of State) to "directly or indirectly engage in the production of any special nuclear material outside of the United States" as including exports by its licensees to third countries of equipment incorporating licenses technology. Thus, in these licensing agreements, such exports generally require the U.S. licensor's approval, which is, in turn, dependent upon the licensor obtaining the necessary U.S. Government authorization.

The reaction of foreign licensors to the recent DOE action amending 10 CFR 810 by substantially increasing the number of national requiring previously has existed—to retransfer non-sensitive reactor tecnology is perhaps best exemplified by the comments of a major British licensee of an American vendor:

"In entering into these agreements, NNC had the right to expect therefore that they were free to seek overseas business in connection with pressurized water technology in a large number of countries throughout the world. Whilst the argeements themselves allow modifications from time to time, to conform with United States regulations, there was no precedent which would provide indications that such modifications would be of a magnitude to limit, if not completely change, the business expectations which might arise under the agreements. The recently published Federal Register part VIII issued by the United States Department of Energy on Friday 17th September 1982 adds a further 47 countries to the 19 already and in our view this represents a change of magnitude such as to alter the spirit of the contract between us.

"Countries are included on the current proposed list who might be fairly judged to have little or no intention of importing Light Water Reactor Technology. There are others who would not be considered suitable by the U.K. Government and therefore, NNC would not be able to enter into a business arrangement of this nature. However, there are a number of proposed inclusions which we believe are reasonable business prospects and which could most likely satisfy the U.K. Government with suitable safeguard arrangements."

Finally, a nuclear export policy based on reality will recognize the improbability that non-proliferation will ever be considered as the supreme, overriding considering of U.S. foreign policy. To illustrate this point, Congress threatened to eliminate funding for the IAEA as a result of the Israeli delegation's credentials being rejected on the last day of the IAEA's 1982 General Conference. Had these funds not been ultimately restored, the IAEA's vital safeguards program would have been seriously endangered, and the underpinning of non-proliferation controls correspondingly destroyed. A further foreign policy anomly is evident in the fact that this proposed non-proliferation legislation would prohibit any nuclear dealings with Israel—even the transfer of non-sensitive technology.

These examples represent two hard foreign policy choices which seem to be in total conflict with each other. I want to emphasize that I am not commenting on the merits of the actions. Rather, I am using them as examples of the hard choices which often must be made between non-proliferation and other U.S. political objectives. This raises a basic question. Isn't it better to maintain some flexibility to handle problems of this nature as they arise, rather than freezing future policy options thru rigid legislative restrictions?

Having made this comparison of my perceptions of the significant differences between the two basic approaches to non-proliferation, I would like to respond to the four specific issues identified in your letter of invitation.

The first issue relates to the effectiveness, as a non-proliferation tool, of requiring full-scope (I believe the current, 'state-of-the-art' term is "comprehensive") safeguards as a precondition for all U.S. nuclear exports. I think I have already covered this point in some depth but, to summarize, I see no non-proliferation benefit in requiring such safeguards for non-sensitive materials, equipment or technology, particularly when they do not incorporate "high-technology" and are widely available from other sources. Depending on circumstances, international safeguards covering the specific facility and its related special nuclear material may be adequate; if a particular component is of a type generally licensed by Commerce for non-nuclear uses, then export for nuclear use without safeguards may be appropriate, unless it is to be used in a sensitive facility. In any case, it is almost impossible from a practical

standpoint to enforce export controls on "dual use" items which are not by definition of high sensitivity in their non-nuclear applications.

I am in total agreement with the view that a universal regime of comprehensive safeguards for special nuclear material, major components and sensitive technology would be a big step forward in reducing the dangers of proliferation if adopted by all significant nuclear supplier nations. However, I do not see how adopting a unilateral U.S. policy of requiring comprehensive safeguards on all of our nuclear exports will help to bring this about. In fact, it strikes me that such a policy could even be counterproductive, since it would completely remove the U.S. as a competitive factor in the nuclear market of certain nations. Why should other suppliers who would otherwise be competing with us for these markets want to adopt a comprehensive safeguards policy which would have the effect of restoring the normal competitive balance unless they were highly motivated by other reasons to do so? To date, this motivation is not apparent.

Finally, I should like to note that only three major supplier nations currently require comprehensive safeguards as a condition of nuclear export. (I am not certain whether their policies apply to all exports or only to those considered as sensitive and/or significant.) These countries are Australia, Canada and Sweden. While the two latter nations market nuclear power reactors, they are a relatively minor factor in the export market; the major nuclear export of the first two is, of course, natural uranium. Perhaps more significantly, with the one-time exception of Canada in its nuclear dealings with India and Pakistan, their decisions in the mid-1970s to require comprehensive safeguards did not apply retroactively to existing commitments but only to future transactions. For example, although Canada tried to persuade Argentina to accept comprehensive safeguards, it was unsuccessful and ultimately agreed to complete the Atucha reactor, then under construction, with IAEA safeguards only on the reactor itself and its related fuel cycle.

The second issue raised is on the viability of providing low-cost uranium enrichment services to produce slightly enriched uranium fuel for those nations which agree to forego reprocessing. My personal view is that this offer would find few if any takers. It has become increasingly clear that, within reasonable limits, the charge for enrichment services is only a third or fourth-order consideration when a foreign utility seeks a long-term supplier of enrichment services. Most important is reliability of supply, and the United States already has lost a number of foreign enrichment services contracts because we are perceived as an unreliable supplier. To reinforce that point, I quote from an article entitled "Stop Treating Europe Like a Banana Republic" by Dieter Buhl of the West German magazine Die Zeit, which appeared in the Washington Post of August 1, 1982. Herr Buhl states:

"And have not the Soviets always honored their trade contracts with the West—in contrast to America under Jimmy Carter, who suddenly interrupted the contracted delivery of highly enriched uranium for European reactors?"

The charge for enrichment services, moreover, is not a major factor in the cost of nuclear-generated power nor is such cost highly sensitive to changes in the enrichment services charge. In return, however, the foreign party would be required to forego all opportunities to reprocess spent fuel or to utilize plutonium-based fuels, presumable forever. Even for those nations which do not currently have specific plans or desires to reprocess or to develop plutonium fuels, this would appear to be a high price to pay. Even should plutonium duel never become economic, relative to uranium fuel, in the long-term future—and I believe that few in the nuclear industry believe this is a likely premise—there may still be other legitimate reasons for reprocessing. For example, some nations may regard this as the most effective route to ultimate spent fuel disposal or some irradiated fuels eventually may deteriorate to the point where further safe storage is no longer possible. Others may feel that energy independence and national security are of over-riding importance—e.g., Japan and some of the European powers.

The concept of offering slightly-enriched uranium fuel at "below market" price in exchange for non-proliferation concessions has been explored for a long time. It first surfaced during the early days of the IAEA, when it was proposed that the AEC make enriched uranium available to the Agency at a price below that at which it was being sold by the AEC directly to customers. The Agency could, for example, apply a part of the differential toward its operating budget and still sell at a price below that of the AEC. Customers who bought at the lower price from the IAEA would automatically be subject to IAEA's international safeguards whereas AEC customers were, at that time, normally subject to bilateral U.S. safeguards. The plan never got off the ground because of domestic opposition as well as the apparent disinterest on the part of many prospective foreign customers, who preferred to deal with the AEC even at a somewhat higher price.

A price incentive of the type proposed would, I believe, require changes in the provisions of the Atomic Energy Act regarding charges for enrichment services and I suspect that the U.S. nuclear utilities would press for some form of comparable price concession. I note that at the September 20 hearing of your subcommittees on this subject, Mr. Udall expressed some reservations on the "subsidized sale" concept.

While on the subject of incentives, I also note the offer in H.R. 3058 to enter into a program of technical cooperation and assistance aimed at resolving problems associated with spent fuel storage and disposal in accordance with the cooperative program developed under section 223 of the Nuclear Waste Policy Act. It is my understanding that the Department of State, in accordance with section 223, sent out letters to a large number of countries offering such assistance without preconditions, to which it received only a handful of responses, expressing general interest—in some cases as an adjunct to their planned reprocessing activities.

The third question relates to views on the Administration's current proposal to provide advanced consent for reprocessing and plutonium use for specified countries. It is my understanding that the current proposal applies only to the European Community (Euratom) and Japan. Furthermore, I would observe that the U.S. currently has no prior consent rights in its agreement for cooperation with the Euratom countries insofar as spent fuel generated therein is concerned; thus, the current proposal would change the existing situation only for Japan.

I favor the Administration's proposal to take this step for a limited number of industrially developed nations for the following reasons. First, it introduces a greater degree of predictability into their long-range fuel-cycle planning process. Thus, it should be effective in encouraging these nations, as a part of our renegotiation efforts, to accept the standards for nuclear cooperation agreements set out in the NNPA. Second, I do not believe that continuation of the present case-by-case approval process will, in the long run, alter the plans of nations such as Japan for using plutonium-based fuels. It will only serve to provide a continued, and unnecessary, source of friction between our two countries.

Third, U.S. willingness to adopt an advanced consent policy would reflect the consensus of the International Fuel Cycle Evaluation (INFCE) in this matter and would be consistent with President Carter's promise to the international participants at its conclusion to "...carefully review the Evaluation's results and take them into account in implementing (our) national and international policies with regard to the development and expansion of nuclear energy." Both Canada and Australia did review their earlier case-by-case approach following INFCE and both have now adopted a policy similar to that of advanced consent for western Europe (including nations other than members of the European Community) and Japen. The U.S. is now the only hold-out, and the Administration, I feel appropriately, is trying to adopt an approach leading to a sensible solution.

Finally, you have asked for comments on the Administration's "comprehensive safeguards initiative" and its prospect for success. I do not consider that I am the best qualified witness to answer this question, but I will try to do so to the best of my ability. It is my recollection that the U.S. made its first strong effort to get all supplier nations to adopt comprehensive safeguards as a condition of major, sensitive nuclear exports during negotiation in the late 1970s of what ultimately came to be known as the Nuclear Suppliers' Guidelines. However, although it was not then successful, every Administration since that time has continued this effort. In querying the Department of State about the present initiative, we were unable to obtain detailed information since it is being undertaken through quiet, unpublicized bilateral negotiations—a tactic which I think is most likely to achieve the desired results in any international negotiation.

In essence, I was advised that the Department of State, in concert with other concerned U.S. Government agencies, was consulting on this matter through key diplomatic channels and that a constructive dialogue was underway. The next steps to be taken are now under consideration. All this sounds encouraging, but I do not want to minimize my feeling that this is a most difficult task and that any progress which may be made will come in, perhaps, small incremental steps and slowly at that. I certainly wish the U.S. negotiators every success—not only would this enhance the global non-proliferation regime but it also would be helpful to the U.S. nuclear industry in its competition for international markets with other suppliers.

In reviewing these two legislative proposals, I have noted a number of other areas on which I had hoped to have the opportunity to comment. This is, however, a complicated subject and I feel that I have had an ample chance to address the most significant ones. I thank the subcommittees for giving me the opportunity to describe the nuclear industry's views on these non-proliferation issues.

Mr. BONKER. We shall now hear from Mr. Leventhal, who is President of the Nuclear Control Institute.

STATEMENT OF PAUL LEVENTHAL, PRESIDENT, NUCLEAR CONTROL INSTITUTE

Mr. LEVENTHAL. Thank you, Mr. Chairman.

I appreciate the opportunity to testify this morning on behalf of Nuclear Control Institute regarding the legislation before this committee. The legislation is a suitable response to what we regard as dangerous directions being followed by the Reagan administration in its nonproliferation program.

I would also hasten to add, however, that our Nation's efforts to deal with the proliferation problem should not be confined to the arena of nuclear commerce If indeed nuclear weapons proliferation is a major national security problem for this country, the Government should be prepared to deal with it in relation to the full range of bilateral interests that exist between us and nations that pose problems in this area. I will address this in a moment in my testimony.

FULL-SCOPE SAFEGUARDS

I have organized my testimony to deal with the legislation according to the four topics that were raised in the letter of invitation, the first being the effectiveness as a nonproliferation tool of requiring full-scope safeguards as a precondition for all U.S. nuclear exports.

Requiring full-scope safeguards as a minimum condition of nuclear supply can be a very effective nonproliferation tool but only if two things happen.

First, nonproliferation law and other export law must be revised to eliminate the double standard that now allows some exports to be conditioned on full-scope safeguards and others only on safeguards on the particular facility involved. By getting its own export policy in order, the United States is then in a far stronger position, both morally and politically, to pressure other nuclear exporting nations to do the same.

The second thing that must happen is that U.S. officials, with cooperation from industry, be prepared to exert such leadership. This requires the United States to expend far more short-term political capital to achieve long-term nonproliferation and national security gains than has heretofore been the case. It also requires the United States to impose far higher political costs on noncooperating nations than we have ever been prepared to do.

This leads to the point I made at the outset. We have to transcend nuclear commerce and deal with nonproliferation as a major national security problem, with our diplomacy and our policy reflecting the magnitude of the problem today and in the foreseeable future.

By passing the Wolpe amendment, the House has completed half the task with regard to full-scope safeguards. If the Wolpe amendment is enacted into law as passed by the House, then there would be a comprehensive, universal full-scope safeguards requirement on all U.S. nuclear exports.

However, the intensity of opposition to this measure by the administration and apparently by the industry suggests that Government and industry are not prepared to play a vigorous leadership role for achieving adherence among all suppliers to full-scope safeguards as a minimum condition of nuclear supply. This lack of U.S. leadership is the heart of the proliferation dilemma.

Unless Congress strengthens nonproliferation law and then performs the oversight necessary to insure that the law is enforced, not bypassed, we are likely to witness a continuation of nuclear-business-as-usual that would put us on a path to a plutonium-as-usual world.

By the year 2000, which is less than two decades away, such a world will have to manage safely and securely some 600 tons of separated plutonium introduced into commerce by that time, according to the industry's own current worldwide plans and projections. That would be enough plutonium for 88,000 atomic bombs.

We believe that reactor-grade plutonium, as it is called, is suitable for use in weapons. I don't think anyone sitting at this table would care to stay in Washington if there was a terrorist nuclear blackmail threat and the material used in the device was confirmed to be reactor-grade plutonium.

NUCLEAR THREAT

I think we would take such a threat very seriously. Although plutonium from power reactors is not the preferred weapons material, it is a suitable material—this we have been advised by members of our Board, one of them a former weapons designer and another a retired admiral who has specialized in proliferation questions.

I would like to submit, if I may, for the record a summary of a report that the Nuclear Control Institute issued, entitled "World Inventories of Civilian Plutonium and the Spread of Nuclear Weapons." It deals with this question, the accumulating civilian inventories of plutonium and the potential proliferation consequences.

Mr. BONKER. Is that the report?

Mr. LEVENTHAL. Yes; it is. It is a two-page summary.

Mr. BONKER. Hearing no objection, the report will be inserted in the official record.[1]

Mr. LEVENTHAL. Thank you very much.

It would not seem unreasonable to require full-scope safeguards now as the minimum condition of U.S. nuclear export policy and nonproliferation diplomacy. It also would seem reasonable that as a corollary objective the United States aggressively pursue the elimination of separated plutonium and the other nuclear explosive material, highly enriched uranium, from civilian programs at home and abroad.

If full-scope safeguards are to have any significance beyond the rhetorical and the cosmetic, nuclear power and research programs must be redirected to utilize and produce only nonexplosive nuclear materials that can be safeguarded effectively.

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[1] See app. 8.

The potential for effective safeguards on nonexplosive materials is there, but it would appear in realistic terms that an effective safeguard system cannot be devised, either politically or technologically, to deal with many, many tons of nuclear explosive materials being transported and handled in commerce throughout the world.

Achievement of full-scope safeguards without an eventual ban on nuclear explosive materials is not likely to buy that much in the way of nonproliferation of nuclear weapons in the long run. Both objectives must be pursued and achieved in tandem if the global spread of nuclear weapons is to be prevented, not simply managed.

DISCOUNTED ENRICHMENT SERVICES

As to the second topic, the viability of providing low enriched uranium inexpensively in those countries agreeing to forgo reprocessing, as is addressed in H.R. 3058, we feel that this approach should prove viable if the U.S. Government is prepared to pursue the offer vigorously in conjunction with the other positive incentives provided in the bill for discouraging plutonium use.

The offer of discounted enrichment services should prove viable because it builds upon information and practical experience not available to policymakers in the late 1970's when the Carter administration set aside a stockpile of low enriched uranium and tried unsuccessfully to offer nations assured fuel in return for nonproliferation commitments.

Among the changed circumstances that we are aware of is that there is now a glut, not a shortage, of natural uranium. We now know how extensive is the overcapacity of uranium enrichment services worldwide. We now know how costly and how difficult commercial reprocessing has proven to be. We have come to understand how uneconomical commercial breeder reactors are. Therefore, some nations previously unwilling to forgo plutonium in return for cheap, assured, low-enriched uranium fuel may be willing to do so today in view of the changing circumstances.

I also want to add that as part of any assured fuel supply arrangement, there would have to be an offer to take spent fuel. That, perhaps, will be the most difficult and most nettlesome thing to achieve because nations are not anxious to open their doors to accept spent fuel from other countries. That has to be worked at. We cannot afford just to let the plutonium accumulate in anticipation that someday we will figure a way out of the dilemma. It really needs to be done now.

The two bills before the committee, particularly because of the positive assurances provided in the Nuclear Explosives Control Act, we feel provide a good legislative framework for achieving these objectives.

Topic three is the administration's current proposal to provide advance consent for reprocessing and plutonium use for specified countries. We are aware of talks going on with Japan to try to negotiate such a long-term programmatic approval, and we view this as an unwarranted and dangerous departure from U.S. nonproliferation policy, as embodied in the cautious case-by-case approach spelled out in the Non-Proliferation Act.

It is highly unlikely that large amounts of plutonium can be effectively safeguarded anywhere, including Japan. Even if we trust Japan not to build nuclear weapons with our plutonium, a precedent will have been set that other advanced but perhaps less trustworthy nations can be expected to seek to exploit. It will be all the more difficult and perhaps diplomatically impossible to say "no" to such nations after saying "yes" to Japan.

I would like, if I could, to insert a short article from Nuclear Fuel dated September 26 that points out that the talks with the Japanese are not going particularly well, largely over a disagreement on U.S. insistence that the Japanese, as part of an overall understanding, agree to require full-scope safeguards as a condition of their exports to other nations.

Mr. BONKER. Mr. Leventhal, I think you are filling up our record, but it looks like a short report.

Mr. LEVENTHAL. It is a short article.

Mr. BONKER. Hearing no objection, it will be included.[1]

Mr. LEVENTHAL. On the safeguards issue, if I might, also, there is another short article from the same issue dealing with IAEA Director Hans Blix' position that the Agency performs essentially a promotional role, not a regulatory role, and that safeguards is part of that promotional function. It is about four paragraphs long.

Mr. BONKER. Without objection, so ordered.[2]

Mr. LEVENTHAL. Thank you, Mr. Chairman.

ADMINISTRATION ROLE

Turning to topic four, and I will conclude on this point, the administration's comprehensive safeguards initiative and its prospects for success. The President's statement last March that he would pursue comprehensive safeguards as a condition of supply universally is essential to U.S. nonproliferation efforts. The unfortunate part is that there was apparently no followup at the Williamsburg summit, as the President had indicated there would be—this apparently because of opposition, particularly from France, to the initiative.

A further undermining factor is that the administration seems to have violated its own comprehensive safeguards principle with regard to U.S. nuclear fuel and other supply arrangements with non-NPT nations by engaging in fuel supply and other nuclear assistance for India, Argentina, Brazil, and South Africa. And as I noted before, the administration's opposition to the Wolpe amendment also serves to undermine its own comprehensive safeguards initiative.

Finally, there is the problem of the ineffectiveness of IAEA safeguards if we ever did achieve full-scope safeguards. That problem, as I indicated in submitting the article about IAEA Director General Blix, really must be dealt with on a high-priority basis.

The most effective complement to the administration's comprehensive safeguards initiative would be enactment of the provision in H.R. 3058, to ban U.S. exports of civilian technology and equip-

[1] See app. 9.
[2] See app. 10.

ment important to construction of enrichment, reprocessing, and heavy water plants. Without such a ban in U.S. law, we are hardly in a strong position to press other suppliers to join in a universal ban on the export of these dangerous facilities.

Thank you, Mr. Chairman.

Mr. BONKER. Thank you, Mr. Leventhal.

[Mr. Leventhal's prepared statement follows:]

PREPARED STATEMENT OF PAUL LEVENTHAL, PRESIDENT, NUCLEAR CONTROL INSTITUTE

Mr. Chairman and members of the Foreign Affairs Committee's Subcommittees on International Security and Scientific Affairs and on International Economic Policy and Trade: I appreciate your invitation to testify today on behalf of Nuclear Control Institute at this joint hearing on pending legislation to amend the Nuclear Non-Proliferation Act of 1978.

These legislative hearings complement Congress' essential role in overseeing the government's nuclear export program to ensure that both the spirit and the letter of non-proliferation law are being adhered to. Congress needs to redouble its oversight role in this area so that such sensitive and far-reaching export decisions as the Administration's recent approval of the retransfer of 143 tons of U.S.-origin heavy water to Argentina are known to Congress and to the public before the fact rather than after.

I am Paul Leventhal, President of Nuclear Control Institute, a not-for-profit educational organization concerned exclusively with the problem of nuclear-weapons proliferation. We develop studies and strategies for exploring options to strengthen the international nuclear non-proliferation regime and to ban nuclear-explosive materials—separated plutonium and highly enriched uranium—from commerce. Our Board of Directors includes several experts on the proliferation problem who are familiar to this Committee, including Peter A. Bradford, who served on the Nuclear Regulatory Commission; Rear Admiral Thomas D. Davies USN (Ret.), who headed the Non-Proliferation Bureau of the Arms Control and Disarmament Agency; Denis A. Hayes, who headed the Solar Energy Research Institute; Dr. Theodore T. Taylor, who designed the biggest and smallest fission bombs in the U.S. nuclear arsenal, and Barbara W. Tuchman, the historian.

Nuclear Control Institute's ongoing activities include chairing an informal Working Group on Nuclear Explosives Control Policy, which is made up of some 30 public-interest organizations that have an interest in this problem area. We organized the pending intervention by six organizations before the Nuclear Regulatory Commission to block the export of reactor components to India. We are exploring whether the Administration's decision in the Argentine heavy-water case is lawful under the Nuclear Non-Proliferation Act. In addition, we recently won a lawsuit in Federal District Court requiring the NRC to release a classified report (the "Morgan Memorandum") on weaknesses in the safeguards inspections of the International Atomic Energy Agency. The case is now under appeal. And, in response to Congressional requests, we have assisted in the preparation of non-proliferation legislation now before the Committee and the subject of these hearings.

Each of these efforts is a response to what we regard as dangerous directions being followed by the Reagan Administration in its non-proliferation program. Both by its own domestic nuclear program and by its nuclear-trade initiatives with other nations, this Administration is helping nations that do not now possess nuclear weapons to acquire the capability to build them. At the heart of the problem is the Administration's acceptance of plutonium—a nuclear weapons material—as a legitimate civilian fuel. In sharp contrast to the policies of the Ford and Carter Administrations, the Reagan Administration is promoting reprocessing and plutonium-use both at home and abroad. It is engaging in or facilitating nuclear trade with nations that refuse either to ratify the Nuclear Non-Proliferation Treaty, to accept international safeguards on the full scope of their nuclear activities or to pledge not to set off nuclear explosions.

Unless Congress takes steps promptly to check these policies and practices, the Administration will undercut—perhaps permanently—the traditional U.S. leadership role in non-proliferation, and will cause an already overburdened international inspection system to be overwhelmed by highly sensitive nuclear facilities and materials that cannot be safeguarded effectively against misuse for making weapons of mass destruction.

Consequently, Nuclear Control Institute strongly supports the two bills pending before the Committee—H.R. 1417, The Nuclear Non-Proliferation Policy Act of 1983,

and H.R. 3058, The Nuclear Explosives Control Act of 1983. In several respects the bills take similar approaches to strengthening non-proliferation law by closing loopholes that permit continued U.S. nuclear assistance to nations refusing to submit to full international inspections for verifying that such assistance is not misused to produce nuclear weapons. We favor prompt enactment of these provisions, as well as those sections of H.R. 3058 that provide other nations positive incentives, in the form of nuclear fuel assurances and technical assistance, to forego the use of explosive plutonium and highly enriched uranium in their nuclear programs.

I have organized my testimony to discuss the legislation in the context of the four specific topics raised in your letter of invitation.

TOPIC ONE: THE EFFECTIVENESS AS A NON-PROLIFERATION TOOL OF REQUIRING FULL-SCOPE SAFEGUARDS AS A PRECONDITION FOR ALL U.S. NUCLEAR EXPORTS

Requiring full-scope safeguards as a minimum condition of nuclear supply can be a very effective non-proliferation tool, but only if two things happen:

First, non-proliferation law and other export law be revised to eliminate the double standard that now allows some exports to be conditioned on the receiving country accepting safeguards on all its nuclear activities, and some exports to be conditioned on the recipient agreeing to safeguards only on the particular facility that utilizes an exported item. The United States, by getting its own export policy in order, is then in a far stronger position of leadership, both morally and politically, to pressure other nuclear-exporting nations to do the same.

Second, U.S. diplomats and bureaucrats, with cooperation from industry, be prepared to exert such world leadership. This requires the United States to expend far more short-term political capital to achieve long-term non-proliferation and national security gains than has heretofore been the case. It also requires the United States to impose far higher political costs on non-cooperating nations than we ever have been prepared to do.

The first task belongs to Congress, and half the task was accomplished on September 30 when the House passed the Wolpe amendment to the Export Administration Act. The amendment was drawn from key provisions of H.R. 1417 and H.R. 3058 to strengthen and harmonize U.S. nuclear export criteria. It would bring internal consistency to the Atomic Energy Act by requiring exports of components and transfers of technology to be governed by the same full-scope safeguards requirements as now applies to exports of nuclear reactors and fuel. A similar amendment soon will be considered by the Senate.

The Wolpe Amendment was prompted by three recent decisions of the Reagan Administration to provide substantial nuclear assistance to India, Argentina and South Africa, despite their refusal to ratify the Nuclear Non-Proliferation Treaty, to accept full-scope safeguards or to pledge not to set off nuclear explosions.

The decisions involve a commitment to supply reactor parts to India (or to retransfer to India U.S.-origin parts from other countries), an approval of a retransfer of U.S.-origin heavy water to Argentina, and an approval of a technology transfer to permit U.S. companies to service and maintain two French-built power reactors in South Africa. In each case, the nuclear assistance can go forward because full-scope safeguards is not required by existing law as a condition of supply of these items.

The amendment would require the full-scope safeguards criterion to be met with regard to NRC exports of components pursuant to Section 109 of the Atomic Energy Act, as well as retransfer of such components (the India and Argentina cases); to technology transfers by DOE pursuant to Section 57b of the Atomic Energy Act (the South Africa case), and to exports of dual-use items by the Commerce Department when such exports are specified to be used in facilities that produce or utilize special nuclear material, or are determined to be likely to be diverted for that purpose.

The amendment provides for a Presidential waiver of the export restrictions and for reporting to Congress on the reasons for such a waiver 60 days before the waiver takes effect, thereby precluding a "surprise" approval as in the Argentina case. The amendment is retroactive to August 1, 1983, in order to pick up the approvals for Argentina and South Africa.

The intensity of opposition to this measure by the Administration and industry suggests that the U.S. Government is not prepared to play a vigorous leadership role for achieving adherence among all suppliers to full-scope safeguards as a minimum condition of nuclear supply. This lack of U.S. leadership is the heart of the proliferation dilemma.

Unless Congress strengthens non-proliferation law, and then performs the oversight necessary to ensure that the law is enforced, not bypassed, we are likely to witness a continuation of nuclear business as usual that would put us on a path to a

plutonium-as-usual world. By the year 2000, such a world will have to manage safely some 600 tons of separated plutonium introduced into commerce by that time, according to industry's current worldwide projections. That would be enough plutonium for 88,000 atomic bombs.

The political and technical obstacles to safeguarding effectively that much nuclear explosive material are enormous and, in the view of several experts, probably insurmountable. Successful diversions and thefts of small but significant quantities of plutonium would result in a world of unprecedented danger and violence. Wholesale conversion of large national stocks of civilian plutonium into nuclear weapons at a time of regional or world tensions could trigger nuclear world war.

It would not seem unreasonable, then, to require full-scope safeguards now as the minimum condition of U.S. nuclear export policy and non-proliferation diplomacy. It also would seem reasonable that, as a corollary objective, the United States aggressively pursue the elimination of separated plutonium and the other nuclear explosive, highly enriched uranium, from civilian programs at home and abroad. If "full-scope safeguards" is to have any significance beyond the rhetorical and cosmetic, nuclear power and research programs must be redirected to utilize and produce only non-explosive nuclear materials that can be safeguarded effectively.

Achievement of full-scope safeguards without an eventual ban on nuclear explosive materials in commerce is not likely to buy that much in the way of non-proliferation of nuclear weapons in the long run. Both objectives must be pursued and achieved in tandem if the global spread of nuclear weapons is to be prevented, not simply managed.

A good place to start is with enactment of the Wolpe Amendment, and this Committee is in an excellent position to help make that happen by insisting on the House-passed language in the House-Senate conference on the Export Administration Act. But this is only a first step. It is essential that Congress also enact the provisions in H.R. 3058 to provide nuclear fuel assurances and technical assistance to other nations as a positive incentive to forego nuclear-explosive material in their civilian nuclear programs, as well as the provisions in both H.R. 3058 and H.R. 1417 to discourage and sharply restrict commerce in these explosives. I will address these items in dealing with the next two topics.

TOPIC TWO: THE VIABILITY OF PROVIDING LOW-ENRICHED URANIUM INEXPENSIVELY IN THOSE COUNTRIES AGREEING TO FORGO REPROCESSING AS ADDRESSED IN H.R. 3058

This bill, the Nuclear Explosives Control Act, builds upon the most successful elements of the non-proliferation approach of the previous Administration and of the Nuclear Non-Proliferatioon Act of 1978, to combine generous nuclear-fuel assurances and strict nuclear-export controls as the basis of a comprehensive program for discouraging widespread use of nuclear-explosive materials in commerce. It represents the best possible carrot-and-stick approach to slowing the spread of nuclear weapons, in order to allow time for long-term diplomatic and arms-control initiatives to ease regional tensions and to reduce the nuclear arsenals of the superpowers.

The principal carrot is a substantial discount on the price of U.S. enrichment services for low-enriched fuel unsuitable for nuclear weapons, to nations agreeing to forego development of reprocessing, and enrichment facilities, as well as to forego the use of separated plutonium.

This approach should prove viable if the United States government is prepared to pursue the offer vigorously in conjunction with other positive incentives provided in the bill for discouraging plutonium use, specifically:

A further discount on the enrichment price for nations agreeing to run reactors on specially improved low-enriched fuel that conserves uranium, reduces spent fuel generation and lowers the production of residual, by-product plutonium;

A single export license to assure supplies of low-enriched uranium fuel sufficient to meet the lifetime requirements of all their nuclear powerplants—the fuel to be provided in shipments sufficient to operate each plant for three years at a time;

Technical assistance to increase the fuel efficiency of light water reactors, to resolve nuclear-waste management problems, including the storage and disposal of spent fuel, and to develop alternative energy sources.

Further, the offer of discounted enrichment services should prove viable because it builds upon information and practical experience not available to policy makers in the late 1970s when the Carter Administration set aside a stockpile of low-enriched uranium and tried unsuccessfully to offer nations assured fuel in return for non-proliferation commitments.

We now know, for example, that there is a glut, not a shortage, of natural uranium in the world. We now know how extensive is the over-capacity of uranium enrichment plants worldwide in relation to the sharply reduced numbers of nuclear powerplants actually being built. We now know how costly and how difficult commercial reprocessing has proven to be, just as we now know how uneconomic commercial breeder reactors are. Some nations previously unwilling to forego plutonium in retrun for cheap, assured low-enriched fuel, may be willing to do so today in view of the changing circumstances.

Finally, the approach is viable from the standpoint of cost, even if a large number of nations takes us up on the offer of discounted fuel. The cost to the U.S. government would be in terms of lost revenue rather than out-of-pocket expense. Estimates done by the Congressional Research Service indicate that, if all non-nuclear weapons states actually participated in the program, the discounted enrichment price would result in lost revenue of $438 million in 1985, $678 million in 1990, and $924 million in 1995.

These are admittedly large sums when viewed in isolation, but in national security terms they represent a bargain. Compare these dollar figures, for example, with the cost of a single B-1 bomber: $283.3 million. Or, with the cost of a single Nimitz-class nuclear carrier: $3.8 billion. Or consider total defense outlays in fiscal 1983: $208.9-billion. Or defense outlays projected for fiscal 1985: $261.6 billion.

Discounting the price of enriched uranium to help nations avoid the use of nuclear-explosive materials in commerce is a sound investment. And in terms of what the United States pays for national security, the price tag is relatively small.

This approach to non-proliferation should not be dismissed as a "non-starter" based on the disappointing experiences of the Carter Administration in negotiating fuel assurances. There is much to gain and little to lose in legislating a fresh approach that exploits the current realities of the nuclear marketplace to steer the world away from plutonium.

TOPIC THREE: THE ADMINISTRATION'S CURRENT PROPOSAL TO PROVIDE ADVANCED CONSENT FOR REPROCESSING AND PLUTONIUM-USE FOR SPECIFIED COUNTRIES

The Administration's first and perhaps only attempt thus far to implement the proposal is to be found in its current efforts to negotiate a long-term approval of Japanese reprocessing of U.S.-supplied fuel and use of the separated plutonium in Japan's nuclear program. This effort represents an unwarranted and dangerous departure from U.S. non-proliferation policy as embodied in the cautious, case-by-case approach to plutonium-related approvals spelled out in the Non-Proliferation Act. Abandoning this cautious approach for what would be an open-ended, 30-year approval represents a Rubicon which, once crossed, legitimizes and inaugurates the plutonium economy.

It is highly unlikely that large amounts of plutonium can be effectively safeguarded anywhere, including Japan. Even if we trust Japan not to build nuclear weapons with our plutonium, a precedent will have been set that other advanced, but perhaps less trustworthy, nations can be expected to seek to exploit. It will be all the more difficult, and perhaps diplomatically impossible, to say "no" to such nations after saying "yes" to Japan.

It should be noted that there are recent reports that the U.S. talks with Japan are not going well, largely because Japan is unhappy with our efforts to get them to agree to require full-scope safeguards as a condition of their exports to other nations in return for giving Japan long-term U.S. permission to reprocess U.S.-origin fuel. Such a quid pro quo is required under H.R. 1417 as the basis for advance, long-term U.S. approvals of reprocessing and plutonium-use in countries like Japan.

We prefer the stricter provision of H.R. 3058, which defers any foreign extraction of plutonium from nuclear fuel provided by the United States for use in commercial activities until such time as Congress determines adequate international safeguards and sanctions are in place.

Under this provision, Japan would be permitted to separate and utilize U.S.-origin plutonium sufficient to meet its existing research and development needs, including development of a demonstration breeder reactor, if sufficient plutonium for those purposes is not available from other sources. Widespread use of U.S.-origin plutonium for a commercial power program, however, could not be approved until Congress determines effective international safeguards and sanctions are in place to deal with diversions for weapons purposes.

Japan, as a close U.S. ally, should be prepared to engage in cooperative fuel-supply and waste-management arrangements with the United States to avoid the use of plutonium fuel to the fullest extent possible. The Administration should be

negotiating these types of arrangements rather than an agreement for widespread use of plutonium. Every effort should be made to provide cooperative nuclear fuel assurances in the form of low-enriched uranium to Japan and other nations before plutonium-use is approved. Such assurances are provided in the Nuclear Explosives Control Act, as already discussed.

TOPIC FOUR: THE ADMINISTRATION'S COMPREHENSIVE SAFEGUARDS INITIATIVE AND ITS PROSPECTS FOR SUCCESS

On March 31, in a major arms control address, the President called on U.S. allies to join the United States in adopting "comprehensive safeguards as a condition for nuclear supply commitments that we make in the future." He said he would discuss with other world leaders "the need for urgent movement on this and other measures against nuclear proliferation."

Such strong public statements by the President are essential to U.S. non-proliferation efforts. Unfortunately, there was no apparent follow-through on this commitment at the Williamsburg economic summit a month later. The indications are that the President did not raise it once it became clear that France in particular would resist any commitment to fullscope safeguards as a condition of nuclear supply. The apparent reluctance of the President to press the issue at the summit does not bode well for the success of the Administration's full-scope safeguards initiative.

A further undermining factor is that the Administration has violated its own comprehensive safeguards principle with regard to U.S. nuclear fuel and other supply arrangements with non-NPT nations that refuse to accept safeguards on the full scope of their nuclear activities—namely, India, Argentina, Brazil and South Africa. And, as noted earlier, the Administration strongly opposes the Wolpe Amendment, which simply codifies full-scope safeguards as a minimum criterion for U.S. exports into law.

Finally, as noted earlier, even if a universal commitment to comprehensive safeguards were achieved, there remains the problem of the ineffectiveness of those safeguards and the need to achieve a universal ban on exports of materials and facilities that cannot be safeguarded effectively—specifically, separated plutonium, highly enriched uranium, and the facilities that produce and utilize them.

The most effective complement to the Administration's comprehensive safeguards initiative would be enactment of the provision in H.R. 3058 to ban U.S. exports of civilian technology and equipment that are important to the construction of enrichment, reprocessing and heavy water plants essential to the production of nuclear explosive materials. Without such a ban in U.S. law, we are hardly in a strong position to press other suppliers to join in a universal ban on export of these dangerous facilities.

Mr. BONKER. We shall now turn to our final witness this morning, Mr. Myron Kratzer, who is the vice president of International Energy Associates Limited.

Good morning, Mr. Kratzer.

STATEMENT OF MYRON B. KRATZER, VICE PRESIDENT, INTERNATIONAL ENERGY ASSOCIATES, LIMITED

Mr. KRATZER. Thank you very much, Mr. Chairman, and members of the subcommittees.

It is a privilege to be here to testify before you this morning. I will try to summarize my rather lengthy prepared statement. I would like to introduce my comments by some general views on the current status of U.S. nonproliferation policy.

The objective of avoiding the spread of nuclear explosives has been a constant of U.S. policy for many, many years, since 1945. Fortunately, this is an objective which is not confined to the United States. Every major supplier has adopted responsible nonproliferation policies with regard to its own nuclear exports, and there is broad acceptance of the principle by the international community that nuclear weapons are an inappropriate goal of national policy.

Since 1954, when the Atomic Energy Act was amended, there has also been a broad consensus that cooperation under effective controls offers a better hope for avoiding proliferation than does a policy of denial. There is a good reason for this consensus; that is, that it has been by any objective of standards a successful policy.

The fact that proliferation has proceeded so slowly is not accidental. It is a consequence of policies actively promoted by the United States and, I might add, in very close cooperation between the Congress and successive administrations.

While we can't afford to be complacent, I don't believe that we can afford to discount our achievements and risk a reversal by adopting unproven policies. The nonproliferation regime that we have today could not have been achieved under today's conditions of weakened commitments to the use of nuclear power and the diminished international confidence in the reliability of supply arrangements and cooperation.

Against this background of considerable consensus, the current resurgence of the domestic debate on nonproliferation policy is, I believe, quite discouraging. I believe that it is in our interest to stop magnifying our differences and to try to rediscover our common ground on nonproliferation policy.

This means that we should not elevate such more or less theological arguments as whether nonproliferation is primarily a political or technical issue. It has both elements, and that means that our nonproliferation policies should have, as they do have, elements that seek to limit technical capabilities in places where that is achievable and realistic and reduce the motivations for attaining nuclear weapons and increasing the political costs and penalties of nuclear weapons development.

The basic question, it seems to me, is not whether or not we should do one or the other but how do we find a reasonable middle course.

FUEL CYCLE

We should stop having again theological arguments as to whether the fuel cycle is the key route to proliferation. I think there is a consensus that there are many routes to proliferation and the fuel cycle is only one of them. It happens to be the one which has not been employed to date, but it shouldn't be ignored.

If we turn to the question of the fuel cycle, on which much of our nonproliferation policy concentrates I think with some mistaken emphasis—at the two extremes, we can limit the risk of diversion from the fuel cycle by denying it universally, by denying at least the sensitive parts of it universally, or we can take another approach and allow it to go forward universally under safeguards.

No responsible opinion that I am aware of in the United States calls for the complete denial of reprocessing, in other words, for that first approach. H.R. 3058, for example, would accept reprocessing in existing facilities. Similarly, no responsible opinion of which I am aware favors the other extreme of allowing, much less encouraging, the sensitive steps of the fuel cycle in every country that seeks them, regardless of their need or the proliferation risk involved.

So, the question is, how do we find the best approach between those extremes? I think the key issue here is an important one but a relatively narrow one, which is whether in order to deter proliferation in countries of real proliferation risk we need to place severe restrictions on our closest partners, whose cooperation we need if we are to have an effective nonproliferation regime.

I believe that question has been answered by experience and that the answer is that it is neither necessary nor desirable to place those restrictions on all of our partners, on our closest partners, and that it is not an achievable approach.

With this general background, I will comment briefly on the two proposed bills. In my prepared statement, I have covered several topics that appear in both bills in somewhat different ways. I won't try to summarize here that portion of my testimony at this time, but I would like to address myself to the question of timeliness.

I think Ambassador Porter has already noted that the Non-Proliferation Act has been in force for only a relatively short period of time, for 5½ years. The world has come to live with it, even though it is not universally popular with our partners.

PROBLEMS OF CHANGE

The adoption of sweeping changes in U.S. nonproliferation policy only a few years after enactment of NNPA is, I believe, fundamentally inconsistent with the need to demonstrate once again the stability and predictability of U.S. policies. That, in turn, is a condition which is absolutely essential for the restoration of confidence.

So, change itself is untimely, almost without regard to its nature or content. The problems of change, such as suggested by these two bills, would be compounded when this change includes major new restrictions, including some that are retroactive.

Such changes are even more troublesome in the present climate, when the reality is not one of U.S. leverage but an uphill fight to retain our existing enrichment customers in the face of massive surpluses and unfavorable U.S. prices.

Let me turn now to the four specific topics which the committee identified for comment.

The first of those is the effectiveness of requiring full-scope safeguards on all U.S. exports. I think there is a broad consensus—and I was pleased to hear that confirmed this morning by Ambassador Porter—that this is a sound principle, that the principle of full-scope safeguards is one which would be welcomed by U.S. industry, as well as by other parts of the political and nuclear communities.

I believe it is important to note that the approach which is now being suggested by the administration, as I understand it, calls for full-scope safeguards as a condition of significant new exports. The words "significant" and "new" I think are both important qualifiers.

No aspect of U.S. nonproliferation policy has led to greater resentment and loss of confidence than that of retroactivity, the attachment of new conditions to existing commitments. Even when the condition is an appropriate one, as I believe full-scope safeguards to be, its retroactive application is unwarranted and prejudicial to our nonproliferation objectives.

It is equally important to the credibility of our policies that full-scope safeguards not be tied to minor and widely available items, such as would be brought about by this proposed legislation. The doctrinaire application of full-scope safeguards to all nuclear exports, therefore, is likely to be viewed both by the intended recipient and by other exporters as not an effective policy but one which is self-defeating.

LOW ENRICHED URANIUM

The viability of providing low enriched uranium inexpensively is the next topic. The basic question here, it seems to me, is whether our objective is the avoidance of reprocessing or the avoidance of reprocessing in undesirable and inappropriate locations.

I believe that the latter objective is the appropriate one and that the effectiveness of a policy such as that proposed by the legislation in bringing about or deterring reprocessing in locations where it really counts is likely to be extremely limited.

In fact, I believe that there is a very high likelihood that the arrangements proposed in H.R. 3058 would be accepted, if at all, only by countries which already have no intention of undertaking reprocessing and where reprocessing would not constitute a proliferation risk. The result would be substantial cost to the United States without a corresponding nonproliferation benefit.

Finally is the administration's proposal to provide advance consent for specified countries. One of the fundamental principles of nonproliferation policy from the very inception of the peaceful uses program has been the need for stability and predictability in supply arrangements, particularly those relating to the nuclear fuel cycle. Only with such assurances will other nations be prepared to rely on the United States as a source of supply and forgo the development or use of independent and uncontrolled sources.

Against this background, case-by-case application of prior consent rights simply encourages the substitution of other sources of supply. I believe that the approach which is now being taken by the administration of programmatic approvals with a very limited number of countries is one that will advance U.S. nonproliferation objectives.

I think it is worth noting that the previous administration was moving in this direction as well and that that same approach has already been adopted by other key suppliers, Australia and Canada, in their cooperative arrangements with Japan and Western Europe.

Finally, I would like to comment on three points which I think are relevant to my testimony and to the bills that are before the committee and which I believe deserve somewhat more attention than they have received.

RETROACTIVITY

One of these is the question of retroactivity. I have already said that the most damaging feature of certain provisions of existing legislation are those which are retroactive in their application.

Every country is free to adopt policies it wishes on new arrangements, but the attachment of new conditions retroactively to exist-

ing arrangements, however desirable those conditions might appear, is destructive of confidence and invites the development of alternate and independent sources of supply which in all probability will be subject to less effective nonproliferation measures than our own.

I would also like to comment on the question of standards for licensing. When we examine licensing applications or similar requests for U.S. approval under agreements, the tendency is to think in terms of the consequences of approval.

That is appropriate, and we should do so, but it is really only half the story. What we also have to do, if U.S. interests are to be fully served, is to examine the consequences of denial as well. Only if this is done can we be certain that all the relevant factors are taken into account and that a determination is made which maximizes the achievement of U.S. interests.

PROLIFERATION RISKS

Finally, I would like to comment on the proliferation risks as they exist in the world today. It is a fact of life that many if not most of the nuclear exports or related decisions which the United States must make will have no direct significant impact on a recipient country's capabilities to develop nuclear explosives.

This is so because most of these exports at the present time will contribute only marginally, if at all, to the capabilities already present. This does not mean that the decisions that have to be made are not important ones, but it does mean that this consideration should take into account not only the direct proliferation risk attendant on each export action but on the impact of that decision on our broad nonproliferation interests, both within the recipient country and in the third countries.

The denial of exports, which would have only marginal significance on the capabilities of a recipient, about whose capabilities or intentions we might have some doubt, but which could undermine other countries' confidence in U.S. reliability, could be more inimical to U.S. interests than would approval in some cases.

This concludes my attempt to summarize my statement, Mr. Chairman. I would be happy to respond to any questions.

Thank you.

Mr. WOLPE [presiding]. Thank you very much. I want to thank all the witnesses for their presentations.

[Mr. Kratzer's prepared statement follows:]

PREPARED STATEMENT OF MYRON B. KRATZER, VICE PRESIDENT, INTERNATIONAL ENERGY ASSOCIATES LIMITED

Mr. Chairman and Members of the Subcommittees. I am honored by this opportunity to appear before your Subcommittees to comment on H.R. 3058 and H.R. 1417, as well as to comment on specific topics concerning nonproliferation policy which you have identified.

I would like to introduce my comments on these specific matters by expressing some general views on the current status of U.S. and international nonproliferation policy. The objective of avoiding the spread of nuclear explosives has been a constant of U.S. foreign policy issues since 1945, supported by successive Administrations of both parties and with virtual unanimity by the public and the Congress. This objective is rooted in the conviction that the possession of nuclear explosives by additional countries will increase the risk of nuclear war and, complicate efforts toward nuclear arms control, thus reducing both U.S. and global security.

Fortunately, these beliefs and objectives are not confined to the United States. Every major supplier has adopted responsible nonproliferation policies with regard to its own nuclear exports, and there is broad acceptance by the international community that the acquisition of nuclear weapons is an inappropriate goal of national policy—one that will, in fact, decrease rather than enhance the security of any nation making that choice.

Since 1954, there has also been a broad consensus, both within the U.S. and internationally, that cooperation in the peaceful uses of nuclear energy under effective controls offers a far better hope for the avoidance of further proliferation than does a policy of withholding cooperation. There is good reason for this consensus, for the policy which has been followed in its basic outlines by every Administration for the past 30 years, has by any objective standards, been a successful one. In his testimony before your committee last year, Professor Joseph Nye pointed out that "what is interesting about this 40 year old technology is not that nuclear weaponry has spread but that it has not spread more; that we are doing better . . . than might be expected." Dr. Nye went on to say that there is a danger of complacency, a point with which I am also in full agreement and which is always a prudent one to keep in mind.

The fact that proliferation has proceeded so slowly, and that so many countries with the capability of developing nuclear explosives have chosen not to do so is not accidental. It is the consequence of policies actively promoted by the United States and accepted by many other nations. Thus, while we cannot afford to be complacent, neither can we afford to discount our achievements to date and risk a reversal of our successful record by adopting unproven policies which are unacceptable to other countries. The nonproliferation regime as we know it could not have been achieved under today's conditions of weakened commitment to nuclear energy and diminished international confidence in the reliability of supply and cooperative undertakings.

Against this background of unanimity on objectives, broad consensus on the basic approach, and solid achievement, the current resurgence of the domestic debate on nonproliferation policy is somewhat discouraging. I believe that it is in our interest to stop magnifying our differences and to rediscover our common ground on nonproliferation policy. If we do so, I believe we will find that the real differences are far narrower than we had expected.

It is generally accepted that proliferation has both a technical and political ingredient; that it can take place only when a given country has both the technical capability to develop nuclear explosives and the political desire and will to do so.

This means that our nonproliferation policies should include measures directed toward both limiting technical capabilities, where this is relevant and achievable and by reducing the motivations and increasing the costs and penalties of engaging in nuclear weapons development and acquisition.

Professor Nye expressed the view that the nonproliferation problems of the eighties are more likely to have a political cast and require a political solution. I agree with this assessment, nevertheless, some less industrialized countries cannot realistically undertake a nuclear explosives development program without extensive outside assistance; in other cases, outside help may reduce the time scale significantly, or improve the chance of success. In these cases, where political motivation for nuclear weapons may be present, measures to minimize or control technical capabilities can be helpful in reducing proliferation risks. How and where to apply such measures is the area where most disagreement lies and debate over the potential role of the nuclear power fuel cycle arises.

At the extremes, two ways of limiting the risk of diversion from the fuel cycle are available. One is to seek to deny the sensitive parts of the fuel cycle—enrichment and reprocessing, universally. The other approach is to allow these activities to go forward under safeguards to verify their use exclusively for peaceful purposes. But intermediate positions between these two extremes are also possible, with attempts to deny these activities in some cases and allowing them to go forward under safeguards in other cases. It is in this intermediate area where most responsible opinion is found.

No responsible opinion in the United States of which I am aware calls for the complete denial or reprocessing. H.R. 3058, for example, would accept reprocessing in existing facilities in nuclear weapon states or states having de facto full-scale safeguards. Similarly, no responsible opinion of which I am aware favors the other extreme of allowing, much less encouraging, the sensitive steps of the fuel cycle in every country that seeks them, regardless of its need or the proliferation risk it poses.

This rejection of the extremes by all parties suggests that it is not accurate—and it is certainly not helpful—to trade accusations that one school of thought would turn back the clock to the pre-1954 policy of total denial, or that the other school of thought is trying to dismantle the long-standing U.S. policy of nonproliferation. But the question remains where between the extremes can we best minimize the risk of this particular route—the fuel cycle—to proliferation. The experience of the recent past provides some guidance in answering that question.

In 1975, following the sale of reprocessing facilities to several countries that had no apparent need for them and were involved in regional rivalries or conflicts, an effort was begun at U.S. initiative—the London Suppliers Conferences—to secure agreement on limiting further dissemination of this technology. The original goal of the Suppliers Conference was an important but limited one—to achieve a moratorium on further sales of these technologies to sensitive countries or regions, and this goal was largely achieved. No further sales of reprocessing or enrichment technology to sensitive locations have taken place, and three arrangements, in Korea, Taiwan, and Pakistan, have been discontinued.

In 1977, an attempt was made to go beyond the goal of avoiding the further spread of reprocessing and other sensitive technologies to sensitive regions, when a new approach was announced calling for the indefinite deferral of reprocessing, with the U.S. itself foregoing commercial reprocessing by way of example. This policy was not successful in bringing about the abandonment of reprocessing in any of the industrialized countries or in reversing their plans to enlarge their existing reprocessing capabilities.

The unique feature of the 1977 policy was not its concern with the special proliferation risks of reprocessing and plutonium. These had always been recognized and were being addressed in the London effort to restrain their further dissemination to sensitive regions. Rather, the 1977 policy was based on the concept of universality; the belief that only by foreclosing reprocessing and plutonium use everywhere, including the U.S. itself, could its further spread to sensitive regions be contained. U.S. partners, however, took exception to the U.S. position that in the cause of setting a good example, they should be dealt with on the same basis as countries who had refrained from signing the NTP; whose nuclear power programs did not justify reprocessing and plutonium use; and whose security situations created strong motivations for nuclear weapons development.

I believe that this experience, coming as it did when the U.S. position as a nuclear supplier was considerably stronger than at present, tells us something about the limits of U.S. influence in imposing a nonproliferation regime of its own choosing. Instead of achieving its objective of the indefinite deferral of reprocessing, the policy reduced the willingness and ability of the U.S.'s principal partners to cooperate with it in following strong nonproliferation policies in the sensitive regions of real proliferation risk.

As a result, as the previous Administration came to a close, its principal nonproliferation officials recognized the need for a policy which distinguished among countries on the basis of their needs and nonproliferation credentials. This same recognition formed the basis of current policies, a further and reassuring demonstration of the continuity, when all is said and done, of U.S. policy in this crucial area.

Thus, the key difference between the nonproliferation policy enunciated early in the previous Administration and current policies while extremely important, is a relatively narrow one. It is whether, in pursuit of effective measures to deter proliferation in countries of real proliferation risk, and where external assistance can make some difference in their ability to achieve a nuclear capability, it is necessary or desirable for the U.S. to seek to place severe restrictions on its closest partner's efforts to develop more secure nuclear energy sources. I believe that that question has been answered by experience and that the answer is that it is neither necessary nor desirable.

With this background, for whose length I apologize, let me turn now to the bills pending before the Committee. Time does not permit a detailed section-by-section commentary, but I will try to provide some highlights of my views. I have organized these comments by topic, since both bills deal with the same set of issues, although in somewhat different ways.

REPROCESSING

HR 1417 would leave the current provisions of Section 131 of the AEA with respect to reprocessing largely unchanged except for the addition of a prohibition against programmatic approvals of reprocessing unless the cooperating party requires full-scope safeguards on its own nuclear exports.

For reasons outlined in my comment on programmatic approvals, I believe that such approvals are essential to the maintenance and improvement of the close relationships with our nuclear partners that are needed to assure their continued cooperation in effective nonproliferation and nuclear export policies. The adoption of an appropriate full-scope safeguards requirement on tneir own nuclear exports is a highly desirable outcome of this kind of relationship.

However, I believe that experience tells us that an attempt by one party to dictate by statute the outcome of a complex negotiation, particularly in the very concise terms employed in Section 132a(1) is not likely to be successful.

I might add that, regardless of how it is achieved, I do not see any prospect for persuading other suppliers to adopt a full-scope safe-guards policy that would apply this criterion retroactively to nuclear exports taking place under their existing contracts and commitments. If we are serious in seeking to persuade others to follow a full-scope safeguards policy, as I hope and believe we are, it must be clear that we do not expect them to dishonor their prior contracts.

H.R. 3058 would place new and severe restrictions on reprocessing and plutonium use, in effect "grandfathering" these activities only when they take place in existing facilities in nuclear weapon states or other countries where full-scope safeguards are in effect. These restrictions would appear to constitute another instance where new conditions are placed unilaterally and retroactively on existing U.S. commitments, since several U.S. agreements provide for U.S. consent to reprocessing when this can be done under effective safeguards. The restrtictions would also have the effect of locking-in the dominant position in these fields of one nuclear weapon state which has taken the lead in reprocessing and large-scale breeder demonstration, a result which I do not believe in the U.S. interests.

Most importantly of all, the application of these new restrictions would have the inevitable effect of encouraging the remaining U.S. enrichment customers abroad to replace U.S. enrichment with that from other, less restrictive sources. Coming at the time of a world surplus of enrichment capacity and price changes which have already made U.S. enrichment more costly than that of other suppliers, not simply a theoretical possibility.

AUTHORIZATION OF TECHNOLOGY TRANSFERS

Both bills would, among other things, limit authorizations for technology transfers to non-nuclear weapons states to countries meeting the full-scope safeguards criterion unless a Presidential waiver is secured.

Under existing legislation, the transfer of information designated "sensitive nuclear technology" is already restricted to countries with full-scope safeguards. It would not be inappropriate to similarly limit some other major exports not falling in the category of sensitive nuclear technology; for example, comprehensive licenses for the manufacture of reactors or their critical components, items which themselves can be exported only to full-scope safeguards countries. I assume that this is the policy already being followed.

The difficulty with the proposal of the bills is the very broad range of activities for which authorization may be required, given the sweeping language of Section 57b of the Act, which prohibits engaging "directly or indirectly" in the production of special nuclear material outside the United States. Many of the activities which require either general or specific authorization under the broad language of Section 57b are of little consequence and involve information or services that are widely available. Eliminating the opportunity for U.S. firms to engage in these activities would in some cases set back rather than advance U.S. non proliferation objectives.

The language of these provisions of the bills is also open to the interpretation that the full scope safeguards criterion would be applicable retroactively to authorizations already granted by the Secretary of Energy. The impact of this result on the credibility of the United States would be severe.

Both bills would also unconditionally prohibit the transfer of certain major categories of reprocessing technology or components. The prohibition in H.R. 3058 would also extend to enrichment and heavy water production facilities. The prohibition of major reprocessing technology transfers in HR 3058 is consistent with that bill's prohibition of reprocessing in all but existing facilities.

In the case of H.R. 1417, where most of the existing authority to approve reprocessing is retained, I believe that such a prohibition of U.S. technology transfer would be counterproductive and contrary to our nonproliferation objectives, including, in particular, our strong interest in ensuring that any facilities built make use of the advanced safeguards and security technology which has been developed and is available only from the United States. It goes without saying that U.S. participation

in new reprocessing undertakings abroad should be carefully controlled and strictly limited to nuclear weapons states or full-scope safeguards countries with advanced nuclear programs in which we are prepared to approve reprocessing if conducted in accordance with existing statutory requirements. I believe that this is the policy now being followed. The abandonment of this field of cooperation to other suppliers of technology, which would be the result of this proposed statutory prohibition, would not, in my judgment, be in our best interests.

COMPONENT EXPORTS

H.R. 1417 would require full-scope safeguards for the export of at least some components licensed by the Department of Commerce. This requirement is presumably intended to deal with the problem of significant dual-purpose components which have been sought for use in sensitive and clearly undesirable facilities in non full-scope safeguards countries. Such exports are precluded by present policy. The difficult problem lies in defining and identifying these items, not in the determination to deny their export once identified. The application of this requirement however, would be far broader than this, extending even to minor and widely available components to be used in non sensitive facilities such as reactors, as well. It, thus, presents the same difficulties as does the analogous unqualified full-scope safeguards criterion on technology transfers, independent of their importance.

HR 3058 includes a provision, Section 17, which would apply the full-scope safeguards requirement, as well as all the export criteria of Section 127, and the requirement for an Agreement for Cooperation, to all of the components currently licensed by NRC under Section 109(b). Many of the components covered by NRC licensing under Section 109(b) are of little importance and wide availability. Thus, the principal impact of this requirement would, once again, be to foreclose U.S. participation in activities which will go forward in any case.

As I noted earlier, the above comments are only highlights, and do not cover many sections of both bills. I will comment on Section 106 of HR 3058, which proposes a subsidized enrichment price in exchange for undertakings to refrain from reprocessing, in response to the committees request for comments on this specific topic.

As the foregoing comments indicate, I believe that many of the key provisions of both of these bills would not advance U.S. non proliferation interests and would, in many cases, prejudice these interests. Even more important than the impact of specific provisions of these bills, however, is the question of the overall need for and desirability of legislation of this type at the present time.

The Nuclear Non-Proliferation Act, a major and painstakingly negotiated revision of U.S. non proliferation legislation, has now been in force for only 5½ years. The NNPA itself attracted, and continues to attract, strong criticism not only from nations of questionable nonproliferation credentials, but from our close partners who share our nonproliferation objectives even though they hold somewhat different views on how best to implement them.

U.S. legislation is, of course, not designed to be attractive to other countries but to advance U.S. interests. A major consequence of the NNPA, in conjunction with the changes in Executive Branch policy which preceded it, was to reduce confidence in the reliability of the United States as a nuclear supplier and partner. Such confidence is a critical ingredient in our foreign relations, central not only to the achievment of our nonproliferation objectives, but to the credibility of our vital mutual security commitments as well.

The adoption of sweeping changes in U.S. nonproliferation policy only a few years after enactment of the NNPA is, I believe, fundamentally inconsistent with the essentially of demonstrating once again the stability and predictability of U.S. policies, a condition which is essential for the restoration of confidence. Change itself is, thus, untimely almost without regard to its nature and content. The potential problems will be compounded when this change includes, as in the case of the present bills, major new restrictions, including some that are retroactive in application. Such changes are also particularly troublesome in the present climate, when the reality is not one of U.S. leverage through the ability to offer scarce materials on attractive terms and conditions, but an uphill fight to retain existing customers in the face of massive surpluses and unfavorable prices.

Let me turn now to the four specific topics on which you requested comments.

(1) The effectiveness as a nonproliferation tool of requiring full-scope safeguards as a precondition for all U.S. nuclear exports.

This topic poses two somewhat different questions: first, whether the requirement of full-scope safeguards on any nuclear exports is an effective nonproliferation

measure; and, second, whether the extension of this requirement to all nuclear exports is desirable.

There is a broad consensus in the United States, which has considerable although unfortunately less than unanimous support elsewhere, that requiring full-scope safeguards as a condition of significant new commitments is sound nonproliferation policy. The words "significant" and "new" are important qualifiers, essential both to the overall effectiveness of this policy as a non-proliferation measure and to the likelihood of its adoption by other suppliers. No aspect of U.S. nonproliferation policy has led to greater resentment and loss of confidence than that of retroactivity; the attachment of new conditions to existing commitments. This resentment, and along with it the determination to seek other sources of supply, is maximized when the new conditions are perceived as unreasonable or inappropriate in their own right. Even when the condition is an appropriate one, as I believe full-scope safeguards to be, its retroactive application is unwarranted and prejudicial to the achievement of U.S. non proliferation objectives.

It is equally important to the creditability of the policy and its chance of acceptance by other suppliers that efforts to secure full-scope safeguards not be tied to minor and widely available items simply because they are intended for use in nuclear activities. For the few remaining countries that have not yet accepted full-scope safeguards; it is apparent that this position, however unfortunate and misguided we may consider it, is deeply held and not subject to reversal by withholding the export of minor items. In these circumstances, the doctrinaire application of a full-scope safeguards requirement to all nuclear exports is likely to be viewed both by intended recipient and by other exporters not as an effective policy but as self-defeating.

(2) The viability of providing low enriched uranium inexpensively to those countries who agree to forego reprocessing.

In considering this topic, the basic question which must be asked is whether our objective is the avoidance of reprocessing, or the avoidance of reprocessing in undesirable and inappropriate locations. It is my belief that the latter objective is the appropriate one, and the efficacy of a policy of providing enriched fuel at subsidized prices in deterring reprocessing in the locations where it counts is likely to be extremely limited. This is clearly demonstrated by the inability to date to secure adherence to the NPT or full-scope safeguards on the part of the core group of countries which have avoided such commitments as a matter of principle.

Putting aside the question of which of these objectives is the proper one, incentives and benefits clearly have an appropriate role in the negotiation of non proliferation arrangements, as they do in many other international negotiations. The non proliferation regime as we know it today is basically the product of a bargain in which nuclear cooperation was offered in exchange for safeguards and other controls and undertakings. Despite the importance of incentives, the record of securing undertakings to which a country is fundamentally opposed as an explicit trade for even substantial economic benefits is not a good one. As a result, there is a high likelihood that the arrangements proposed in HR 3058 would be accepted, if at all, only by countries which already have no intention to undertake reprocessing and where reprocessing would not constitute a proliferation risk in any event. The result would be substantial cost to the U.S. without a corresponding non proliferation benefit.

There are a number of other more detailed difficulties in this proposal. These include:

The scale of the price reduction which would be required to give the concept any chance of success. In light of present circumstances in the enrichment market, this reduction would have to be quite large, and the corresponding budgetary impact if the proposal achieved some acceptance would be substantial.

The lack of confidence on the part of potential subscribers that the U.S. would be prepared to honor such a costly undertaking over the long run.

The opportunity which would appear to be present under the language of H.R. 3058 for a country to take advantage of the arrangement until it was ready to build a reprocessing facility.

(3) The Administration's current proposal to provide advance consent for reprocessing and plutonium use for specified countries.

A fundamental principle of U.S. nuclear cooperation and nonproliferation policy from the inception of the program has been the need for stability and predictability in supply arrangements, particularly those relating to the nuclear fuel cycle. Only with such assurances will other nations be prepared to rely on the U.S. as a source of supply and forgo the development of independent and uncontrolled sources. Wherever possible, stability and predictability should take the form of reliable contractual understandings. It is for this reason that U.S. Agreements for Cooperation

and fuel supply contracts have durations of 30 years or more, and why efforts have been made to maintain stable fuel supply policies and predictable implementation even where contractual commitments are not involved. The development of independent sources of enrichment can be attributed directly to concerns over the reliability of U.S. arrangements, confirmed by such events as the unilateral changes in enrichment contracting procedures of 1973 and the closing of the enrichment order book in 1974.

Against this background, the case-by-case application of U.S. prior consent rights for reprocessing and reprocessing transfers encourages the substitution of other sources of nuclear fuel not subject to U.S. consent rights for U.S. enrichment. This process was initiated following the policy changes of 1977 even when the U.S. enjoyed an enrichment rice advantage and will be accelerated under the current disadvantageous conditions.

Those who advocate continued use of the case-by-case approach argue that the circumstances might change over a period of time, increasing the proliferation risk of the reprocessing for which long-term programmatic approval has been granted. It is also argued that the case-by-case approach affords the U.S. greater leverage over the nonproliferation policies and actions of other countries.

The realities are, however, that the case-by-case approach diminishes U.S. leverage by encouraging the development of independent sources of supply, and their substitution for supply from the U.S. The supposed U.S. leverage associated with prior consent rights is ephemeral in any event, since other principle suppliers either do not require prior consent or, as in the case of Australia and Canada, have already adopted the practice of long-term programmatic approvals. The concern that circumstances might change over the time period of a programmatic approval, leading to increased proliferation risk, can be accommodated by provisions calling for review and withdrawal of the approval in the event of changed circumstances. The Administration's approach apparently contemplates such arrangements.

Finally, there is a misconception that U.S. prior consent rights over reprocessing have always been intended to be and have been exercised on a case-by-case basis. In fact, approvals of reprocessing under the reprocessing consent provisions of U.S. agreements have been few in number but have generally been based on a one-time determination of the safeguardability of the facility in which reprocessing is to take place, or at least on a determination applicable for a considerable period of time.

In light of these considerations, the Administration's approach of extending programmatic approvals for reprocessing and plutonium use in a very limited number of countries and when all statutory requirements have been met, is one which will advance U.S. nonproliferation interests. It is worth noting that the previous Administration was moving in this direction as well, following the International Nuclear Fuel Cycle evaluation. It is also worth noting that the U.S. currently has no right of prior consent over reprocessing in Euratom countries. The programmatic approval approach offers the only hope for establishing such a right, as reflected in agreements which Euratom has already concluded with Australia and Canada.

(4) The Administration's "comprehensive safeguards initiative" and its prospects for success.

The Presidential nonproliferation policy statement of July 16, 1981 announced that the U.S. would "seek agreement on requiring IAEA safeguards on all nuclear activities--as a condition for any significant new nuclear supply commitment." Earlier this year, the President publicly reiterated this policy, using the term "comprehensive safeguards." This Presidential statement suggests that the initiative is a high priority objective of the Administration, but the current status and prospects of the approach have not been released.

I believe that there has been a general movement on the part of most major suppliers toward comprehensive or full-scope safeguards as a condition of nuclear supply. As early as the London Suppliers meetings of 1975-1976, a number of suppliers indicated a willingness in principle to follow this policy. As in the case of other suppliers understandings, however, unanimity is probably a necessary condition of the arrangements, and one which is always difficult to achieve.

As observed earlier in this testimony, the Administration proposal is that "significant, new" commitments be made subject to comprehensive safeguards, and these two qualifications are essential if the approach is to have any chance of success.

It is my view that, while it will be extremely difficult to achieve, there is a possibility of success of this initiative and, indeed, for other improvements in the non proliferation regime. These prospects will depend heavily on our ability to reestablish the climate of confidence which made possible the development of the nonproliferation regime as we know it today, including such unique institutions as the nonproliferation treaty and international safeguards. The impact of the legislation now

under consideration on our ability to reestablish this climate should be carefully considered.

I should like to conclude this statement by identifying three specific points which are closely related to the substance of the proposed legislation, and which I belive deserve more attention than they have received. These are:

Retroactivity. The most damaging feature of certain provisions of existing legislation are those which are retroactive in their application. Among these are the requirement of full-scope safeguards of Section 128, which is applicable even to supply contracts concluded before the NPT existed, and the export criteria of Section 127, the absence of some of which in the U.S.-Euratom Agreement for Cooperation led in 1978 to an embargo of a number of weeks' duration on nuclear exports to our closest partners in Europe.

Every country is free to adopt the policies it wishes on new arrangement. The attachment of new conditions retroactively to existing arrangements, however, is destructive of confidence and invites the development of alternate and independent sources of supply which in all probability will be subject to less effective nonproliferation measures than our own.

For reasons I have outlined, I believe that any new nonproliferation legislation is untimely and undesirable, but the case against further retroactive restrictions is a particularly compelling one.

Standards for Licensing or Other Approvals. In considering applications for nuclear export licenses and other approvals called for by U.S. agreements, the tendency is to think in terms of the consequences, including the effect on proliferation risks, of approval. This is entirely appropriate and consistent with statutory requirements. It is, however, only half of the inquiry which should be made in considering these important actions. If U.S. interests are to be fully served, it is also essential to consider the impact, including the effect on proliferation risks and our nonproliferation objectives, of denial. Only if this is done can we be certain that all relevant factors are taken into account, and a determination made which maximizes the achievement of our nonproliferation and security interests.

Proliferation Risks. It is a fact of life, even if an unfortunate one in some cases, that many if not most of the nuclear export or related decisions which the U.S. must make will have no direct significant impact on the recipient country's capabilities to develop nuclear explosives, should it wish to do so. This is so because, after many years of nuclear activities in most of the countries in question, material, equipment, and facilities are already present which would allow improper activities to be pursued, although in most cases only by the violation of nonproliferation undertakings. Under these circumstances, most nuclear export decisions made at the present time will contribute only marginally, if at all, to the capabilities already present.

This does not mean that these decisions are not important ones, meriting the most careful consideration. It does mean, however, that this consideration should take into account not only the direct proliferation risk attendant on the proposed action, but the impact of the decision on our broad nonproliferation interests, both within the recipient country and in third countries. The denial of exports which would have only marginal significance on the capabilities of a recipient, but which could undermine other countries' confidence in the reliability of supply by the U.S. could be more inimical to U.S. interests than would approval.

This concludes my prepared statement. I appreciate the opportunity to express my views and will be pleased to respond to any questions which the committee may have.

Mr. WOLPE. Mr. Porter, is there any nuclear technology or material that you feel should not in fact be exported to countries that do not accept full-scope safeguards?

Mr. PORTER. The Act makes it very clear what can and cannot be exported. It defines sensitive nuclear materials, which cannot and should not be exported.

Mr. WOLPE. My question is whether you think that makes sense. Does it make sense that the United States denies nuclear powerplants, fuel and reactors to countries that do not accept full-scope safeguards.

Mr. PORTER. That is a fact of life in the legislation.

Mr. WOLPE. That is not my question, though. I am asking if it makes sense in your judgment.

Mr. PORTER. Well, my opening statement said that full-scope safeguards as a control mechanism in principle make sense, so I have discussed that already.

EXPORT CONTROLS

Mr. WOLPE. The reason I ask, that if I understood the logic of your testimony—at least the centerpiece, as I understood it—you seem to question the efficacy of extending export controls to nuclear components and other elements of technology largely on the grounds that those are available elsewhere; therefore, we really simply are losing potential markets by applying export controls.

My question then is: Is that not equally true with respect to nuclear powerplants and reactors? Are they not also available elsewhere?

Mr. PORTER. Oh, indeed they are. Of course they are. My point is simply this. There are gradations within nuclear exports that the Act that now exists very carefully spells out. There are sensitive things which should not be exported. There are nonsensitive things——

Mr. WOLPE. Even if they are available elsewhere, you still would argue that they should not be exported?

Mr. PORTER. I think that is a decision that has to be made by others. As far as I am concerned, there is no nonproliferation gain to the United States if a French reactor is sold to South Africa. That is what happened. There is no nonproliferation gain to the United States if a French or German reactor or a Russian reactor, for that matter, is sold to a country to which we would not sell.

Mr. WOLPE. Fine. I am just trying to understand your philosophical, basic position. You seemed to be questioning the wisdom of the present ban that is already in existing law with respect to the denial of reactors, powerplants and fuel to countries that do not accept full-scope safeguards.

Mr. PORTER. What I precisely said was that the world would be better off if all nuclear suppliers would agree to apply the criterion of full-scope safeguards.

Mr. WOLPE. That is fine. I don't think anyone would doubt that. But the logic of the Non-Proliferation Act—the existing law, even the legislation now before the committee, is that there is no way to get us to that point unless we are prepared to take that first step and as a matter of public policy assert that we will in fact deny this technology to other countries. Then we are in a position to reach out to other supplier nations to urge them to act in a cooperative fashion.

What I am trying to understand is your basic posture. If I read your testimony correctly, what you have done in that testimony is to essentially challenge the entire act. Just so we have our cards on the table and we know we are not just talking about the question of nuclear components, is it not true that the argument you extend with respect to nuclear components and retransfers allies equally, really, to the existing law?

Mr. PORTER. I thought I made very clear that I felt the existing law, inadequate as it is in some respects, is one that should not be tampered with at this point.

Mr. WOLPE. I heard you say that, but I didn't understand the logic of it, given the rest of your argument. I am just trying to understand——

Mr. PORTER. I don't think that there is a lot of logic in many of the things we are discussing here. I repeat, I do not think it is logical to efface a situation where Japan, which will not presumably apply full-scope safeguards to its exports, has, as a matter of industrial policy, decided to achieve world dominance in nuclear exports. I think that is a fact of life which you have to reflect in your judgments on what you think should be U.S. nuclear export policy.

PLUTONIUM USE

Mr. WOLPE. That is correct.

On page 5 of your statement you quote from a study prepared by the organization you represent to the effect that, "The plain fact is that commercial reactor-grade plutonium is poor material for weapons."

While the technical truth of the statement is evident, is it not conceivable that some of the countries whose nuclear intentions we are concerned about—given the severe security concerns which presumably lead countries to build nuclear weapons—nevertheless could in fact manufacture a serviceable device using this material?

Mr. PORTER. I hark back to a public article that I read a few weeks ago in I think "The Economic Journal" which pointed out that only one country in the world has ever used this in a test; that is, reactor-grade plutonium in a test. The article stated that the material was so unstable that it had to be kept refrigerated and detonated almost immediately.

This is a technical problem. When you have plutonium isotopes other than plutonium 239, you immediately degrade the material into something that nobody would use in a bomb if he could find another route to getting plutonium.

The point is that every country that has made a plutonium bomb has built a nice little clandestine facility or a facility that had nothing to do with a nuclear power reactor and has made its plutonium that way. It is infinitely cheaper, it is also infinitely more reliable bomb-grade plutonium.

Mr. WOLPE. I do not challenge the fact that it is not the most desirable material for weapons. My question is whether it is possible to use it for that purpose. In fact, did not India manufacture its nuclear explosive using an ostensibly civilian nuclear research reactor?

Mr. PORTER. Yes, a research reactor is precisely what makes the good plutonium. You don't make it in a commercial power reactor. It is a totally different machine. That is why dedicated facilities are built to make plutonium. That was a dedicated facility that was technically designed to make purer plutonium 239.

Mr. WOLPE. Are you asserting that—a commercial facility cannot be used for weapons development or are you asserting simply that it is not the most desirable means of accomplishing that goal?

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Mr. PORTER. I am asserting three facts. It has not happened except in the case of the United States, which tried it once in a special test. That test apparently was very difficult. It proved that it could be done, but it proved that it was a very unstable substance.

I am not saying that it could not be done. I don't know what the Russians have done, but I am saying categorically that it has not been done in any other country that has made a nuclear weapon.

Mr. WOLPE. Mr. Leventhal.

WEAPON GRADE PLUTONIUM

Mr. LEVENTHAL. I just wanted to make a point, that even if we were to grant Mr. Porter's argument that reactor-grade plutonium is unsuitable, it doesn't logically follow that, therefore, nuclear powerplants cannot be used to produce very good weapons plutonium. The way that would be done, it would be a misuse of the facility but it could be done, simply by pulling fuel out after relatively low burnup on the pretext that there was a leaker—that is, a leaking fuel element—that it had to be removed and set aside.

In other words, you can produce very good weapons-grade plutonium in a commercial powerplant, and it is one scenario for misuse of commercial nuclear power, particularly in a heavy water reactor where the fuel is being moved all the time.

Mr. PORTER. That is true, heavy water reactors can do it, of course, and we don't make heavy water reactors. The U.S. industry does not. Those are made by Canada.

Mr. LEVENTHAL. But it could be done in a light water reactor as well. I just wanted to make that clear.

Mr. PORTER. That is simply not a fact. I think we don't get anywhere by this argument. There are plenty of technical judgments on this that you ought to get, and neither one of us are qualified physicists. I was just telling what I have heard.

I am sorry that this seems to have gone off on another track. I want to make manifestly clear that I feel it is extremely important, and I spent a good part of my life working on it, to assure that any kind of plutonium—commercial-grade, reactor-grade, weapons-grade—if we can do it, must be kept under careful international control. It must be under safeguards.

That isn't the issue. The issue is simply a technical one of whether any country in its right mind, if it had the option, wouldn't go another route to make bomb-grade plutonium. That is all.

Mr. WOLPE. Could I ask, Mr. Poneman, Mr. Porter, and Mr. Kratzer, whether any of you is uncomfortable in any respect with the contemplated exports or retransfers to Argentina, South Africa, and India?

Mr. PONEMAN. I am particularly uncomfortable with the proposed retransfer of heavy water to Argentina, because although heavy water itself obviously is not a fissile material, it can be used in unsafeguarded facilities.

The Argentinians assiduously avoided the emplacement of full-scope safeguards in their country. I think for the U.S. Government even tacitly or indirectly to condone that approach to nuclear de-

velopment is dangerous. Heavy water is sensitive enough that we ought to be extremely careful about that.

Mr. WOLPE. Would you comment on the other elements?

Mr. PONEMAN. The other ones are a little more complicated, I think. With respect to South Africa, I also think that we ought not to provide reactor services or export the computers that have heavy water uses.

With respect to India, it is the most complicated case because the 1963 Tarapur agreement alters the political calculus in deciding whether to terminate all aid to these reactors. So although I have serious problems with going further with India, I think that the case there is not as strong.

Mr. WOLPE. For diplomatic reasons or for nonproliferation reasons?

Mr. PONEMAN. Well, for both: for diplomatic reasons, because the agreement there could be invoked to criticize a U.S. embargo; and for nonproliferation reasons, to refer to the remark of Mr. Kratzer, retroactivity does have a negative effect on our nonproliferation interests. So, to the extent that we go back on agreements, it is not suitable to our image as a reliable supplier, which promotes our non-proliferation objectives.

[The following statement was subsequently submitted by Mr. Poneman.]

SPARE PARTS TO TARAPUR

I did not mean to imply that, under the 1963 U.S.-India agreement for cooperation, the United States is legally obliged to supply spare parts to Tarapur, but only that the possible reference to Articles III and V (which apply to equipment and other non-fuel exports) could increase the political cost to the United States of refusing such supply. I believe that the United States is not legally obliged to supply the spare parts, and that it should not do so for the reasons outlined in my prepared testimony.

THREE EXPORTS

Mr. WOLPE. Mr. Leventhal, I see you want to comment. Before doing that, let me also ask Mr. Porter and Mr. Kratzer: Are you uncomfortable with any of the three exports that are being contemplated?

Mr. KRATZER. Mr. Chairman, I will try to answer your question but I would rather not say yes or no to the question of being uncomfortable because here again I think that as so often is the case in difficult foreign policy choices, we are not choosing between good and bad but between degrees of undesirability.

Mr. WOLPE. For the record, I would have thought that our major concern in this instance is national security, not foreign policy choices.

Mr. KRATZER. Well, I use the term in its broadest sense. I think that there is an international security factor in this, which we often refer to as nonproliferation.

Let me comment on them one by one. I did have these cases in mind when I made my concluding comments about retroactivity, about the need to take into account both the impact of approval and the impact of denial.

When I made the comment that we need to take into account what is the base situation that we are dealing with, is it are we dealing with a country that already has lots of materials in its possession, facilities in its possession and so on, or are we starting from scratch?

Let me start with what I think is an easy point of view. If I believed that any of these three activities, any of these three proposed exports, would significantly enhance or certainly if it would make the difference between the capability of any of those three countries to develop nuclear explosives or not to do so, I would be opposed to them without any question.

TARAPUR REACTOR

Unfortunately—that is not unfortunate, but it is unfortunate in terms of the decisionmaking process—that is not the case. Take India, for example. It has an unsafeguarded research reactor operating, it has an unsafeguarded power reactor operating, it has two safeguarded natural uranium reactors operating under safeguards but, as Mr. Leventhal said, capable of making a type of material more easily which is more attractive for explosive development.

Given this situation, the Tarapur material is the last material that India would use in any expansion of its nuclear explosive development program. I am quite persuaded of that. I think it is also true that India's record in complying with the letter of its agreements is a good one, so I don't think the question is whether those exports to India are going to enhance its explosive capability. They are not.

The question is, what does denial do to our worldwide image as a reliable supplier. I think it would be very damaging. I think that about the last thing that a supplier can afford to do if he is to come through as reliable is to withhold the spare parts of a very expensive machine that he has sold in good faith under an agreement that has been approved by his legislature and so on.

So, my answer to whether I am uncomfortable or not uncomfortable is that had I had the responsibility of making that decision, I would decide in favor of that export.

ARGENTINE NUCLEAR POTENTIAL

In the case of Argentina I think the situation is pretty much the same. That heavy water is not the difference between Argentina's ability to produce and accumulate weapons-usable material. They already have reactors in operation.

I don't know what their heavy water inventory situation is, but I presume that in this particular case there was a valid objective of maintaining a dialog with the Argentine Government that, in the opinion of those with the responsibility for making those decisions, would contribute in some way to getting them to change their mind.

In other words, I am not either comfortable or uncomfortable, but I think it is a reasonable decision to have been made, taking into account the fact that it is not the difference between their having a weapons material capability and not having one.

I think in the case of South Africa that is even more so. As Mr. Porter said, what is being exported here is a service to a reactor which is certainly going to operate in any case. It is a service which isn't unique, although I have no doubt that we can perform it as well as others, if not better.

Here again, I think the decision is not a nonproliferation one in the narrow sense; in other words, it is not a decision which affects the ability of South Africa to make weapons. They already have an unsafeguarded enrichment plant in operation. I think that the decision must have been based on some judgment that it would permit a dialog that could be constructive in influencing South Africa's decision, and I don't have——

Mr. WOLPE. Known as constructive engagement, I think.

Mr. KRATZER. Yes, and I don't have enough information to either argue with that decision or to be terribly enthusiastic about it. I am sorry to have ducked your question, but I don't think these are simple questions, Mr. Chairman, and that we do have to look at both sides of them.

Mr. WOLPE. Mr. Porter, would you care to react to those three pending cases?

Mr. PORTER. I certainly would start with the premise that if I felt in the case of South Africa that there was a nonproliferation issue, I don't believe that U.S. industry would have been authorized to bid on this service contract.

In the case of India, I was in the U.S. Government at the time of the Indian explosion. I recommended very strong sanctions and action be taken at that time because that was the time to do it. That wasn't done. A lot of literature has been written about that, and I will not comment on it any more.

I will say this. I think Ambassador Goheen, who was there at the end of the Carter administration, in India, has written on this subject. He takes a very different view of the matter with respect to India. I think his voice ought to be listened to.

His point is that we have done nothing helpful to assure that India would not continue on the course of proliferation. He believes India is not doing that. Of course, we have had recent statements from Mrs. Gandhi, which one can take or not with a grain of salt, saying that she is not doing it.

I personally feel that it is rather distasteful to continue in a situation where we have already burned our bridges. We really no longer have a dialog with any of those three countries on nuclear nonproliferation issues, so whatever we do one way or the other isn't going to affect it very much.

Mr. WOLPE. Thank you.

Mr. Leventhal, would you comment on those three cases as well?

CONTRACTUAL ARRANGEMENT WITH INDIA

Mr. LEVENTHAL. I would first like to comment on a point Mr. Poneman made, in which he stated there was a contractual obligation to supply components under the agreement for cooperation with India relating to Tarapur.

That is not the case. The contractual arrangement goes to the fuel, not to the components, and the Tarapur agreement was

unique in the sense that it dealt, first, with a particular facility rather than an entire program, and second, that there were specific misunderstandings, including an agreement to disagree, built right into the agreement on the fuel. So, while it could be argued that we had a contractual obligation to provide fuel, it cannot be argued, based on that agreement, that we have one with respect to components.

As to the three export decisions that you just asked the other witnesses about, I think the position of our organization is clear. We oppose all three. We have testified in the Senate as to why, and I think my testimony makes clear here also as to why.

There is a general point that needs to be made—that is, if our rationale is that we have to be a reliable supplier to be effective and to be credible, and that if we are not a reliable supplier, other suppliers are going to move in anyway, we are simply laying ourselves open to a strategy already being used by India and Argentina whereby they play one supplier off against the other.

They will say anything they have to say at a given moment in order to satisfy a particular concern of the moment. And they let it be known that if we won't supply the heavy water, they will turn to the Soviets.

It is true the Soviets did supply India heavy water after we refused, but they also supplied it under much stricter safeguards and conditions than we were able to achieve with the Indians, so it might not have been a total loss.

But we must not allow ourselves to be nickel/dimed to death by the Argentines and the Indians. It is important that we make our position known and then try to bring whatever influence we can bring to bear on the other suppliers.

As I said earlier, that influence should transcend nuclear commercial questions and touch upon all the other areas of bilateral interest that exist between us and France or Germany or Switzerland—the competitors who move in when we choose not to do so.

I would say that in the Argentine case, if we really accomplished something in the name of nonproliferation by supplying that heavy water, actually by committing heavy water that we had transferred to someone else to be retransferred to Argentina, then perhaps it could be argued that it was worthwhile. But it is unclear that we got anything of any substance.

The one thing we do know is that the Argentines agreed to put 7 tons of heavy water, shipped earlier and removed from the safeguards inventory list, back on the safeguards list. Very inconsequential, it would seem. For that they received 143 tons of heavy water. so they probably got a pretty good deal.

ARGENTINE CREDIBILITY

Now Argentina is understood to be operating two unsafeguarded facilities at present, one a fuel fabrication line parallel to a safeguarded fabrication line, and another an oxide conversion line parallel to a safeguarded line.

Did we get a commitment from them to put those facilities under safeguards? Did we get a commitment from them to take a no-explosion pledge with regard to any material produced through the

use of the heavy water? Or did we just get an agreement that they would not use the heavy water for explosive purposes, which is virtually meaningless?

Whatever commitments we did get, if any, the State Department is not prepared to go public with. If we did get commitments, how credible are they if the Argentines themselves are not prepared to face up to them publicly?

We seem to be getting very little, except to allow ourselves to be played off against other suppliers. That is the basic reason why all three of these recent approvals are most unwise and unwarranted.

Mr. WOLPE. Would you comment specifically on the South African situation as well?

Mr. LEVENTHAL. That involves a technology transfer. I was surprised to hear Mr. Porter say that it wasn't because it is being done pursuant to 57(b) of the Atomic Energy Act, which authorizes technology transfers, including permission to U.S. companies to provide, as in this case, maintenance services, training of personnel, and the procurement of spare parts, according to the contract that would be applied here.

If the Wolpe amendment were to become law, we could not send spare parts manufactured in the United States. But they would be provided by Westinghouse as part of the maintenance arrangement if, in fact, Westinghouse got the contract.

Even under current law there would be a problem about sending components to South Africa if in fact there was a Presidential finding that South Africa was engaged in activities directly relevant to the production of nuclear explosive devices. Such a finding might have to be made, based on certain activities they have been engaging in or at least are reported to or are suspected of having been engaged in.

I think the export is unwise because it provides that incremental benefit that the non-NPT countries are invariably able to get by appealing to one supplier in relation to another.

Granted, South Africa can run those power reactors without the U.S. supplying the maintenance services. Granted, Argentina could probably get heavy water from another supplier if we didn't approve the retransfer. But each little incremental benefit they get puts them that much further to self-sufficiency. Then they would be in a position to tell all the nuclear suppliers basically to go to hell, that they have an independent fuel cycle and we don't have to be dictated to you any more as to nonproliferation.

The only way to at least draw out the process is to make it difficult for NPT-rejectionist nations to get the things they need from us and other suppliers to become independent, at least to stretch out the process timewise.

Mr. WOLPE. Thank you very much.

Mr. PORTER. Could I comment just one moment on that?

Mr. WOLPE. Surely.

Mr. PORTER. The question of technology transfer is a technical question. Sure, the approval was given under the administrative regulations that discuss this as a technical transfer. In fact, there is no technological transfer. The reactor is there, it is operating, it was made by the French, and the only technology that might be

involved is how you apply a wrench to a pump. It is just simply not a measure of sensible——

Mr. WOLPE. Mr. Porter, if indeed the South Africans could do it themselves, why would they be seeking to obtain the service from a source outside the country?

Mr. PORTER. We didn't say they could do it themselves. They contract will be given to the French or the Germans if it is not given to a U.S. firm.

TECHNICAL ASSISTANCE FOR SOUTH AFRICA

Mr. WOLPE. That is right, but doesn't that suggest that the technical capabilities of managing the plant are not at the moment available within South Africa? Is that not why they are requesting the services from without?

Mr. PORTER. It may well be true. The point is that the contract will be given to the French or the Germans.

Mr. WOLPE. That is not my point. I was trying to address the point you were just making in your denial that the agreement represents a technology transfer. I think by definition that is what it is.

Mr. PORTER. It is simply a question of assuring that the plant is run efficiently by somebody who has a lot of knowledge about running a plant.

Mr. WOLPE. Because they do not now have the technical capability of doing so within the country. Is that not correct?

Mr. PORTER. Obviously they have never run a nuclear reactor before, so they want to be sure they talk to somebody who has. That is the whole point.

Mr. WOLPE. That's right.

Mr. PORTER. It is like you don't fix your own Mercedes Benz, if you own one.

Mr. WOLPE. I am surprised to hear you raise this point just now. It seems to me that what you are trying to do by that assertion is to deny the significance of the export that is about to take place. Without receiving that kind of technical assistance, whether it be from the United States, Germany, or France, the South Africans would not then be able to manage that plant safely and efficiently. Is that not correct?

Mr. PORTER. I don't know whether it is correct or not. I am sure they would try to run the plant. It would probably be run less safely, which I don't think is a very good thing for the world. They are not going to invest $2 billion and let the thing sit there.

Mr. WOLPE. I understand. Thank you.

Mr. PORTER. My other point is on procurement of spare parts, where the spare parts come from, of course, depends on the national law concerned. Since the French built the plant, they can obviously send spare parts to South Africa, so it is really not germane. We wouldn't procure or make the spare parts. The South Africans would buy them wherever they feel they can get them, that is all.

Mr. WOLPE. Thank you.

Mr. Berman.

Mr. BERMAN. Thank you, Mr. Chairman.

I am way behind in understanding all of this. Now that I have voted for your amendment on the floor, I would like to ask you, perhaps, to go into some questions about what it does.

As I understand it, it essentially says if you haven't signed the nonproliferation treaty, the United States cannot export items which could be used in nuclear reactors or the construction of nuclear weapons?

Mr. WOLPE. Under present law, countries that do not accept international safeguards on the full scope of their nuclear program are prohibited from receiving from the U.S. suppliers nuclear reactors, powerplants or fuel.

What our amendment did that we attached to the Export Administration Act was simply to say that that prohibition shall apply equally to components and to the retransfer of technology and components.

WOLPE AMENDMENT

Mr. BERMAN. Do any of the witnesses think your amendment is a good idea?

Mr. LEVENTHAL. I do, Mr. Congressman, because it provides internal consistency in the act. It eliminates a double standard. It would permit us then to turn to other countries and say, "We have done this. We would very much appreciate your cooperation in this."

That would be the polite way of doing it. There are less polite, more direct ways of dealing with nations that don't cooperate in what we regard to be a matter of vital concern to our national security, but at least we would have taken the first step by making our own law internally consistent so there are no loopholes that can continue to be exploited.

Mr. BERMAN. You are talking about, in a sense, a basis for going to other nuclear suppliers who are signers of the treaty?

Mr. LEVENTHAL. As well as nonsigners of the treaty.

Mr. BERMAN. China and France.

Mr. LEVENTHAL. China and France. There is an effort being made now with China to work out some understandings on their export policy, their nuclear transfer policy, as a basis of working out an agreement for cooperation with China that would permit U.S. companies to supply reactors or components to China.

So, we have to deal with all suppliers. The best way to deal is to at least be internally consistent and up front with what our policy is and, of course, to try to apply the policy rather than to bypass, find loopholes and so forth.

Mr. BERMAN. The treaty in U.S. law now only affects the sale of the total reactor?

Mr. LEVENTHAL. It deals with different things in different ways. The Wolpe amendment has the overall effect of treating all things the same way. The original concept in the Non-Proliferation Act for having a lesser standard on exports of components and transfers of technology was that in general, they are less sensitive, less important, particularly with regard to any country interested in developing weapons.

In our view, that is simply not the case. There are some very sensitive components and technology that could, under existing law, go out to nations that have not ratified the NPT, that have not agreed to full-scope safeguards, and the effect of the amendment is to apply the same standard to all items.

Mr. PORTER. Could I comment on that, also?

The act provides that no reactors per se can be exported without the provisions of the law applying, full-scope safeguards. Also, principal components, big components that are unique to a nuclear plant, are also under comparable licensing control.

Mr. BERMAN. Plutonium?

Mr. PORTER. No, I am thinking about big or unique components in the reactor itself. What we are talking about now——

Mr. BERMAN. Nondual use items?

DUAL-USE ITEMS

Mr. PORTER. What we are talking about now is basically dual use items. The NRC, Nuclear Regulatory Commission, has made a list of components that should be licensed by the NRC. Other components are licensed by Commerce, although NRC also reviews the export proposal. They are almost in all cases dual use. Many of them are fabricated for the petroleum industry, the chemical industry, for a variety of industries, but they are also usable in a nuclear reactor or balance of a nuclear plant.

They are under U.S. licensing controls, but they are not under Nuclear Regulatory Commission licensing jurisdiction. The main reason for that simply is that such controls are almost unenforceable as a practical matter. These components can be bought in a variety of ways. It is up to the integrity of the Government or the firm ordering them even to say that they are for use in a nuclear reactor. They could be ordered for a chemical plant and be used in a nuclear reactor. That is the problem.

Mr. BERMAN. Well, the company might not know.

Mr. PORTER. The U.S. company might not know, that is right. But still, they are licensed by Commerce. There is an attempt made to assure that they are not sent out for wrong purposes, in effect.

Mr. BERMAN. Mr. Kratzer.

Mr. KRATZER. Mr. Chairman, and Mr. Berman, I must say that I admire Mr. Leventhal's flexibility and willingness to change his point of view because it is well known that Mr. Leventhal was a major framer, a principal framer of the Nuclear Non-Proliferation Act of 1978, which Mr. Wolpe's amendment would modify.

Mr. Leventhal pointed out that the rationale of this original distinction, differentiation in the treatment of major items, entire reactors or their major components and a certain other class of components, was that there is a difference in sensitivity. He, as I understand it, is now——

Mr. BERMAN. That wasn't the theory of the 1978 act.

OBJECTIVES IN NONPROLIFERATION

Mr. KRATZER. I think I am citing Mr. Leventhal's remark of just a few minutes ago correctly. I would go beyond that in my own

mind, although I am not a framer of that legislation, and say that not only is there a difference in sensitivity but there is a difference in availability, there is a difference in importance.

One of the tenets of effective export control—it has been one of the objectives of the consultations between or among nuclear suppliers for many many years—is to try to identify those things which are really critical, without which you just can't get the job done and which are available from only a relatively limited number of suppliers and make them the trigger for the full set of controls, safeguards, and the like.

Mr. BERMAN. So you would disagree with the Wolpe amendment because it doesn't discriminate between items based on importance or sensitivity or availability?

Mr. KRATZER. That is correct, sir. I must say that while at first hearing I thought that Mr. Leventhal was being quite flexible and willing to change his original point of view, I think he ended up saying that this is still the situation, that there are differences in the sensitivity of components and that one way of taking care of this is to treat all components alike.

My problem is that there are differences in importance and sensitivity and availability. While it is not an easy task, it strikes me that we really need to find a way—I think the Non-Proliferation Act of 1978 found a way—of making these commonsense differentiations.

I have to say, Mr. Chairman, that when I look at these two bills that are before the committee now, and Mr. Wolpe's amendment as well, I think that I see in them a very strong common theme, which is that we don't want proliferation to occur with the involvement of our materials, our technology, our equipment. It is kind of a "let's not have it happen on my watch" point of view.

Mr. WOLPE. If I could just interrupt, and if the gentleman would yield for just a moment——

Mr. BERMAN. Certainly.

Mr. WOLPE [continuing]. Mr. Kratzer, I suspected that that was how you viewed the argument. Perhaps this is a useful moment to join the debate directly because that is not the argument, that is not the public policy debate that is occurring here.

From my point of view, what is being asserted is that it is impossible for the United States to attempt to seek a cooperative nuclear nonproliferation posture by other nuclear suppliers if we are going to be the first and the fastest into the marketplace. There is just no way you can do that.

So, the issue really is whether or not we are serious about our own policies; only then are we in a position to use whatever diplomatic resources we have to promote nonproliferation objectives among other nuclear supplier nations.

MATERIALS AVAILABLE ELSEWHERE

That is why I was pressing Mr. Porter so vigorously at the outset. If you go through his testimony, and yours, to some extent, the logic of the argument is that, "By gosh, if other nations can supply it, then why should we do anything? Why should we inhibit

our own exports of these commodities if they are going to be available elsewhere?"

If you accept that logic, I would point out, you have abandoned any effort at a nuclear nonproliferation regime. No one denies that those materials are available elsewhere. No one denies that you will lose some markets. There are certain costs and certain risks involved in proceeding this way, but the alternative is to essentially abandon any such effort.

Mr. KRATZER. Mr. Chairman, I did not mean to imply that what I saw in these bills—namely, the idea, perhaps, that we don't want it to happen on our watch—was the motivation, the principle——

Mr. WOLPE. You not only implied it, you said it.

Mr. KRATZER. No, I said I saw that kind of a theme, not the motivation of those who have framed it. I am somewhat troubled by the point of view that having had on our books a full-scope safeguards provision applicable to key items, to the nuclear fuel, to reactors and so on, since 1978, for 5 years, and not having yet succeeded under either the previous administration or this administration in gaining acceptance of that, what I believe you would say is an incomplete full-scope safeguards approach, I must say that I am somewhat puzzled why we believe that we can gain acceptance of an even more rigid approach. That is not something which I understand readily.

I also feel that if I were another supplier——

Mr. WOLPE. Let me just say, Mr. Kratzer, that I do not believe there is any evidence that this administration cares at all about the issue of nuclear nonproliferation.

NO FIRM POLICY

It seems to me that the administration initiatives with respect to Argentina, India, and South Africa indicate that we don't have a nonproliferation policy in place. We have the law in place but we don't have the policy. We have a policy that is based upon Mr. Porter's world view, which is essentially that any nuclear sale is a good nuclear sale.

That is the problem with which we are contending: The philosophy that it is better to maintain export markets than to take the risks attendant upon developing the kind of cooperation required to promote nonproliferation.

Mr. PORTER. I don't want you to put those words in my mouth because it isn't what I said.

Mr. WOLPE. I confess to taking some poetic license there.

Mr. PORTER. I would say considerable.

Mr. PONEMAN. Mr. Chairman, I would like to comment on that.

Mr. WOLPE. Let me just say that I am sorry. I did not mean to intrude upon Mr. Berman's time to that extent, but I did want to join this debate.

Mr. BERMAN. That is fine.

Mr. PONEMAN. I just wanted to make the point that I agree with you that the United States has an important leadership role to play in the nonproliferation field. We were followed in banning the export of reprocessing by the French and Germans. I think that any time that you look at things in a strictly bilateral context and

decide to approve an export request because the particular item in question will not promote that country's ability to build a nuclear weapon, you are too closely circumscribing your view, because we are in the realm of symbolism here.

PROVISIONS TOO EXTREME

It is important for the United States to be on record as not promoting the sorts of exports that make it easy for people to stay out of the nonproliferation regime. My only problem with the legislation as it now appears is that I feel that some of its provisions are too extreme, especially those perhaps that are retroactive. If you set the floor of U.S. nuclear cooperation too high, I think it is going to be hard for people to accept that jump.

Instead of requiring their immediate acceptance, if you want to achieve full-scope safeguards, which I think we agree is the ultimate goal, I think the way to do it is to engage people at a somewhat lower level of cooperation with perhaps a lower demand for commitment in return, and then gradually engage them at higher levels of commitment.

Mr. BERMAN. If I may just reclaim my time, I know you probably discussed this before in your testimony but now perhaps I will understand. What is the concept of retroactivity in this area mean? Is this back to allowing contracted for materials or——

Mr. PONEMAN. Mr. Kratzer I know is very concerned about this and he may wish to comment.

As far as I understand it, it is the notion that you have certain agreements existing in place and then legislatively, unilaterally you say——

Mr. BERMAN. Agreements between companies and foreign countries?

Mr. PONEMAN. No, between Governments; the U.S. legislation would then preempt the agreement between the two countries involved and impose additional requirements that the recipient of the nuclear systems must meet, and that rankles.

Mr. BERMAN. Let me just try keeping it as simple as I can. We have the treaty and then we have the Nuclear Non-Proliferation Act of 1978, which imposed obligations on us unilaterally over and above the obligations of the treaty?

Mr. PONEMAN. There were agreements of cooperation in place; for example, with the Euratom countries and the United States. In order to continue with nuclear cooperation with those countries, the 1978 act imposed additional requirements.

Mr. BERMAN. Which are being observed by the European——

Mr. PONEMAN. Well, in fact, the President has waived those requirements repeatedly.

Mr. BERMAN. So, this is not a case of the administration observing the 1978 act. It is a case of them having waived this provision?

AGREEMENTS FOR COOPERATION

Mr. KRATZER. Well, that is correct in the case of our cooperation with Euratom, but there are a number of cases where we had agreements between governments, between this Government and other governments, incorporated in what are called by the Atomic

Energy Act agreements for cooperation and which are made more precise by supply contracts between the Department of Energy, a Government agency, and some user or Government abroad.

We are no longer fulfilling some of those contracts because of the requirement of section 128 of the Non-Proliferation Act, that that particular material, which happens to be enriched uranium, is to be supplied only on the condition that the recipient government accept or have in force full-scope safeguards.

For example, we have an agreement with Brazil which is backed up by a specific fuel supply contract, the supply of enriched uranium. That agreement was entered into, if my memory serves me correctly, before there was a nonproliferation treaty.

We can no longer fulfill the requirements of that agreement and fuel supply contract—in other words, the delivery of enriched uranium—because of section 128 of the Non-Proliferation Act, which says that that kind of export can be made only if full-scope safeguards are in force in the recipient country, unless the President chose, as he has the authority to do under the act, to waive that requirement. He has not chosen to do that, and those deliveries are stopped. In the Brazilian point of view, we are not fulfilling a contractual obligation.

PRESIDENTIAL WAIVERS

Mr. BERMAN. Are there some deliveries of a product of that sensitivity and importance that have not been stopped because the President has exercised the waiver?

Mr. KRATZER. Yes, sir.

Mr. BERMAN. To which countries?

Mr. KRATZER. To India. There were two Presidential waivers of deliveries under a more or less identical contract to India. Perhaps there were three waivers, but in at least two cases those waivers were considered by the Congress and narrowly not vetoed or defeated.

Mr. BERMAN. This is the only situation where that waiver has been exercised?

Mr. KRATZER. That particular waiver, yes, sir. As Mr. Poneman said in the case of Euratom, there is a different kind of waiver involved; in other words, there is a different section of the act that has been invoked, but there is a waiver invoked by the President year by year, both by the previous administration and the President.

Mr. BERMAN. To allow the administration——

Mr. KRATZER. To allow the continuation of all nuclear trade with the European Community countries because there is a particular criterion——

Mr. BERMAN. There are European Community countries—well, I guess France and Spain that haven't signed the treaty—that don't have——

Mr. KRATZER. Well, Spain is not yet a member. By the European Community I mean the European Economic Community. Spain is not yet a member of the Community, although it is seeking membership.

Mr. BERMAN. What country doesn't have full-scope safeguards? France?

Mr. KRATZER. No; France does not. But all of the nonnuclear weapons states of the European Community have full-scope safeguards.

SECTION 127 OF AEA

Mr. BERMAN. So what is the waiver for?

Mr. KRATZER. There is another criterion. In the Atomic Energy Act, in the nonproliferation amendments to the Atomic Energy Act, there is a section known as 127 which contains a list of five or six export criteria, all of which have to be met before nuclear exports may take place. One of those criteria is that we must have the right of prior approval over any reprocessing of the material which we supply.

It turns out that in the case of the agreement with the European Community, that that was more or less unique, and the background of this is that it was intended to be unique. In years past, when we wanted to give a special sort of endorsement and boost to European integration, we entered into a special kind of an agreement with the European Community. It did not contain, as did our other agreements, this right of approval by the United States over reprocessing.

As a result of that absence of the right of approval over reprocessing, exports can take place to the Community only if the President waives that particular requirement, and he has done so.

Mr. BERMAN. The Wolpe language would not affect——

Mr. KRATZER [continuing]. Not affect that, no, sir. That is correct. It would not affect that in any way.

Mr. BERMAN. I guess for the three witnesses who don't support that language, what would the Wolpe language affect that should be allowed to continue?

Mr. KRATZER. One easy way of answering that question, I think, is that it would affect each of the three transactions, exports, that were discussed just a little while ago: the export of components to India; the export of—not the export in this case, but the transfer of heavy water of U.S. origin from a third country to Argentina; and the transaction, the maintenance contract involving South Africa.

Mr. BERMAN. And you think from the point of view of encouraging people to provide full-scope safeguards and of enforcing the principles of nonproliferation that those are not served by ending those supplies?

MORE FLEXIBILITY NEEDED

Mr. KRATZER. I think, Mr. Chairman and Mr. Berman, that there is a need for greater flexibility than is realistically available under Mr. Wolpe's amendment. There is a difference in the sensitivity and availability of nuclear components and nuclear services. I think there is a case for allowing some nuclear commerce to take place even with countries who have not subscribed to full-scope safeguards in an effort to keep this dialog open.

Mr. BERMAN. What about enriched uranium?

Mr. KRATZER. That is not permitted except on the basis of a Presidential waiver.

Mr. BERMAN. But I assume the Wolpe language would eliminate that Presidential waiver.

Mr. KRATZER. No, sir, it does not do that. It would not affect the existing full-scope safeguards requirements with respect to reactors, enriched uranium and the like. It only extends that to components, services and technology at what I believe to be in general a lower order of sensitivity.

Mr. BERMAN. Like the heavy water?

Mr. KRATZER. Yes. Now, if there are in the list of things that are now exportable without full-scope safeguards items that are particularly sensitive, this can be dealt with. It can be dealt with by legislation, but it can also be dealt with without legislation—in other words, by regulation—with the cooperation of the administration.

Mr. BERMAN. I am sorry to take so much time, but I am finding this very helpful.

The enriched uranium to India is allowed because of this waiver, but somewhere along that line India is providing full-scope safeguards?

Mr. KRATZER. No, sir. First of all, the waivers were very case specific. They had to do with specific exports of specific quantities. They occurred not in this administration but in the previous administration, and they have run their course; in other words, no further U.S.-enriched uranium is being exported to India because there have been no further Presidential waivers, and there are not full-scope safeguards in effect in India.

COMPONENTS NOT AFFECTED

But the components, which the administration has recently indicated it was willing to have exported, although the license must be issued by the Nuclear Regulatory Commission, the components do not require full-scope safeguards under the present law. Under Mr. Wolpe's amendment, that would be a requirement, although it, too, would be subject to Presidential waiver.

Mr. BERMAN. Mr. Poneman in his statement indicates he disagrees with this administration's nuclear nonproliferation policies and presumably its exports.

But I am unclear specifically why, given the effect of the Wolpe amendment is only on countries that haven't signed the treaty or haven't provided full-scope safeguards, what would you like to see be allowed to continue to those countries that the Wolpe amendment would prohibit?

Mr. PONEMAN. I am glad you ask because I wanted to clarify that I do not support any of the three exports that the chairman asked about and that my only concern with the Wolpe amendment is that it might reach to the very least sensitive technologies at a level when I think it is excessive to require full-scope safeguards in return. It is just a matter of degree.

I don't have a text of the amendment before me, but if it comprehensively includes all components—does it?

Mr. WOLPE. If the chairman would yield for a moment, just for clarification.

I am not certain, Mr. Poneman, that your concern about my amendment encompassing technologies that are not particularly sensitive is valid, at least with respect to dual-use technology.

Under present law, if there is a procedural finding that the end use is not for nuclear purposes or has no nuclear weapons application, then that export can go forward. That would also be the case under my amendment. The amendment would only restrict those exports which do have weapons sensitivity or are applied for nuclear purposes.

DEFINING NUCLEAR PURPOSES

Mr. PONEMAN. And how do you define "nuclear purposes"?

Mr. WOLPE. Well, I am not using the technical language. It restricts technology which is to be used in or is likely to be diverted to a nuclear production or utilization facility.

Mr. Leventhal.

Mr. LEVENTHAL. If I could address that, I have the amendment in front of me, and I think it is something of a shibboleth here to get into this question of "this isn't wise because these are not really sensitive" or "the net catches nonsensitive items that shouldn't be caught" because the amendment is quite specific and, in fact, uses the language of existing law on which existing regulation is based. These are significant items that go out just by definition under the law.

With regard to dual use items, it specifies goods or technology which are to be used in a nuclear production or utilization facility or which, in the judgment of the Secretary of Commerce, are likely to be diverted for use in such a facility.

With respect to the technology transfers by the Department of Energy, it picks up the basic language of 57(b) relating to authorizing to engage directly or indirectly in the production of any special nuclear material in a nonweapons state.

With regard to the NRC components, it catches only those items that the NRC chooses to license itself because, in the view of the Commission, these items or substances are "* * * especially relevant from the standpoint of export control because of their significance for nuclear explosive purposes."

So, the point is that this is not a wide-reaching net that catches everything, including things like screwdrivers and bolts and nuts. It is the equivalent of considering a piston rod for a car not being all that important because it is only a piston rod; yet the car can't operate without a piston rod.

Mr. PONEMAN. To the extent that your amendment only covers those exports that have possible nuclear explosive uses, I would agree with it.

Mr. BERMAN. I yield back to the chairman.

Mr. WOLPE. Thank you, Mr. Berman

I think it is useful to clarify the intent of the amendment, and I also appreciate your clarification of your personal opposition to the three exports that largely motivated the introduction of the amendment.

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Mr. PORTER. Mr. Chairman, could I have 1 minute for a little bit of rebuttal?

Mr. WOLPE. Surely.

Mr. PORTER. I have been accused of crass commercialism, and I'd better squirm out of that one quickly.

Again, we are talking about nonsensitive material available widely from non-U.S. sources. I simply do not understand why tests of foreign availability in all other types of exports are eagerly sought by this committee while that same test is denied to the nuclear industry. It is just beyond my comprehension when we are talking about categories of exports which have nothing to do with attaining nonproliferation objectives.

Second, I don't understand why it is assumed that if we take a moral position of this nature and thereby reduce our competitive advantage with other non-U.S. suppliers, that they are going to willingly give up this competitive advantage which we have handed them.

Mr. WOLPE. Mr. Porter, I don't know if your questions are asked rhetorically, but I want to respond because I think that your having posed them suggests that we have been talking past each other.

A QUESTION OF NATIONAL SECURITY

The issue is not simply a moral question. The issue is one of our national security. How do we go about the task of trying to prevent the proliferation of nuclear weapons capability and technology?

Mr. PORTER. Sure, but my premise was that these things are available from non-U.S. sources——

Mr. WOLPE. That is right. We have always understood that, from the very beginning.

Mr. PORTER. And they are nonsensitive in terms of——

Mr. WOLPE. That is right. That is why I go back to the very first question that I asked you this morning. If indeed one takes the posture that the technology is available elsewhere, and that we don't want to inhibit American exports, then the logic of that particular world view is that we should never have passed the Nuclear Nonproliferation Act in the first instance.

Are you prepared to abide by that or not?

Mr. PORTER. That isn't the case at all. We are talking about an act that blocks sensitive exports. I am talking about nonsensitive exports.

Mr. WOLPE. Mr. Porter, let me just say that there are two different issues. If we want to debate whether or not an individual export will advance a country's nuclear capability, that is one thing. We can have legitimate differences as to whether or not a given export is relevant to enhancing the country's capability of producing nuclear weapons.

I would argue, however, that even a management services contract would in fact enhance a country's ability to operate a nuclear reactor in a situation where they are unprepared to accept international safeguards.

Mr. PORTER. Oh, no, they do accept international safeguards on that reactor. They will have international safeguards.

Mr. WOLPE. That is right, but that is the issue. The issue is not that reactor. The issue is what are they doing elsewhere in their country.

U.S. NUCLEAR POLICY

Mr. PORTER. Well, I think the logical conclusion of what you are saying is that ultimately the United States is no longer a factor at all in world nuclear commerce. If you think that is going to provide us leverage on the development of sensible nuclear nonproliferation policies, I can't see it.

Mr. WOLPE. Let me just say to you that I think the fundamental public policy issue here is whether the United States wants to be directly involved in the effort of preventing the spread of nuclear weapons-making capability and technology.

Our first concern should not be the effect on our nuclear exports. I understand from your industry perspective that you have that concern in mind. But I would argue that, from the standpoint of the public policy of the United States, the issue is whether we promote our national self-interests by allowing the question of foreign availability to dominate our decisionmaking in this area.

I might say that this committee has taken, in fact, a comparable position with respect to foreign availability in other nonnuclear trade matters. There was a big debate on the House floor the other day in which the committee position did not prevail, though it may be reconsidered subsequently, over whether the foreign availability of sophisticated nonnuclear weapons should convince us to allow American manufacturers to make exports that would normally be prohibited.

Mr. PORTER. I submit those are oranges and we are talking about apples. We are not talking about anything that would contribute to a nuclear weapons potential in other countries.

Mr. WOLPE. Mr. Leventhal, and then Mr. Poneman.

Mr. LEVENTHAL. I think the rhetorical question that was posed by Mr. Porter really gets to the heart of the problem. All the Non-Proliferation Act and all the Wolpe amendment to the Non-Proliferation Act, if it were enacted, represent, other than specific controls on U.S. exports, is an opportunity for leadership.

What has to be understood is that these restrictions don't mean anything in the long run unless this Government is prepared to take the initiative and try to sell the same concept to other suppliers as forcefully as possible.

We have to be clear that self-restraint on our part is only half the battle. The other half of the battle is to persuade by one means or another other suppliers to look at these things in essentially the same way we do because of the overriding national security concerns.

Let me use an illustration. It is somewhat of an outrageous one, but I think it would help clarify the problem.

LIBYAN NUCLEAR THREAT

Let's say that Mr. Qadhafi is in the market for a nuclear reactor and by one means or another he is able to acquire the facility, but by golly, all he needs is one control rod drive to make the thing

operate. The U.S. Government feels very strongly that that part should not be provided because we have intelligence to the effect that if he gets that control rod drive and he starts producing plutonium, he intends to use that material in weapons in some kind of a terrorist fashion.

But France, let's say, is prepared to provide the drive because, you know, it is just a control rod drive, it is not the reactor itself, it is one little component. France, or another supplier—we don't have to name France—feels that they have assurances from Libya that it would not be used for nonpeaceful purposes.

Would we sit back and say, well, if that is your judgment, you go right ahead and supply it. We, of course, wouldn't. I think we would bring a lot of pressure upon France or any other supplier that was intending to provide a critical part that could be used ultimately in a violent fashion.

What is lacking now in U.S. Government policy is a clear sense of where all this is going to lead us in 10, 20 or 30 years. If we don't begin putting blocks in place with regard to technology and materials that are highly susceptible to misuse then over time, as these materials accumulate, we are going to lose control.

So, we have to apply the controls today. The only way to start—the first way we have to start is with our own policy and use that policy as a means of influencing other nations in their own national self-interests, and in the global interest, not to supply.

Mr. WOLPE. Thank you.

I will allow all of you to respond. Mr. Poneman.

Mr. PONEMAN. I would like to dwell on the point of dealing with nuclear commerce and nuclear proliferation as related issues. I think they ought to be. I think that they are not necessarily apples and oranges so much as perhaps McIntosh versus Golden Delicious apples.

TWO APPROACHES TO NUCLEAR INDUSTRY

There are two sides of nuclear technology, civil and military, and I think there is a certain elegance to trying to use our civil leverage to influence the military side within the nuclear field. I think that if we want to dissuade other nations from obtaining nuclear weapons, there are going to be two central approaches. One is going to be within the nonproliferation regime and the other is going to be outside of the nonproliferation regime.

Therefore, I think we ought to have two important goals. First, keep the nonproliferation regime as strong as possible, because ultimately countries will be able to build nuclear weapons should they make that decision. Technologically it will be in their reach. So, on the one hand we ought to start rewarding NPT parties and not rewarding, at least in terms of nuclear commerce, non-NPT parties.

The second goal has to be that we want to stop proliferation for countries that reject the nonproliferation treaty. Fine. I think we ought to approach them and recognize their legitimate security concerns. I think we ought to try to persuade them diplomatically, economically and in other ways not to make steps that are antithetical to our nonproliferation interests. But we ought not to trade

with them in providing valuable nuclear commerce, because that undermines the treaty.

Mr. WOLPE. That I think is the logic of both the amendment that I offered on the House floor and the legislation before this committee. I think the combination of your statement and Mr. Leventhal's just a moment ago summarizes the essence of that legislation.

There is one other point I did want to raise, but I know that Mr. Kratzer wanted to respond first.

Mr. KRATZER. I wanted to commend Mr. Foneman, Mr. Chairman, on what I thought was a very effective way of putting what seems to me to be a key issue here; that is, how do we get other countries on board with respect to a requirement of full-scope safeguards.

Mr. Foneman, if I quote him or paraphrase him more or less accurately, said that we can't raise the threshold of that policy or requirement so high that countries who already for one reason or another have some reluctance to go along would be unlikely to do so.

My understanding of the current policy as announced and reiterated by the President is that we are seeking international agreement, agreement from other suppliers, on the attachment of a full-scope safeguards requirement to significant new commitments.

I have no basis for saying whether this is being pursued as vigorously as possible or whether it is on the back burner or what have you, but in any event, that is the announced policy.

DISHONORING EXISTING AGREEMENTS

I said in my statement that I thought that the words "significant" and "new" were both important points. Let's take the question of "new." I simply do not think that other countries will go along with adopting a policy which requires them to dishonor existing agreements. I don't think we should have dishonored existing agreements, and I don't think there is any chance that we can persuade other countries to do that.

I don't think that there is a chance of getting countries to go along with full-scope safeguard requirements for items, even though they may end up in a nuclear reactor, which are clearly minor, generally available and maybe even not specially designed for that purpose.

If we are really serious, and I believe we are and I hope we are, about getting international agreement on full-scope safeguards, we have to make it a reasonable sort of requirement if it is going to be adopted—and I think the words "significant" and "new" are legitimate qualifiers on the kind of full-scope safeguards policy that we can reasonably expect other countries to go along with.

If that is the case, I still have difficulty understanding how we enhance our capability of accomplishing that by an act of self-denial; in other words, by applying a tighter standard to ourselves. I don't think it is harmful, but I don't think it will help us get international agreement if we take this act of self-denial.

On the contrary, I kind of agree with Mr. Porter that if I am sitting over there as a competing nation and see the United States by statute or otherwise taking itself out of the competitive scene, I might welcome that. In any event, I don't think it will help.

ADOPTING A CREDIBLE POLICY

Mr. WOLPE. Again, just for the record, no one is under any illusions that self-denial is an effective policy. That is not the intent, thrust or purpose of the legislation that is before us, nor is it the underpinning of the Nuclear Non-Proliferation Act. I keep hearing that asserted, but it is simply not the case.

The point I am asserting is simply that we cannot expect the cooperation of other suppliers if the United States continues to pursue the kinds of exports that we would have other nations curtail. It is a question of how we adopt a policy that is credible and allows as to exercise leadership with respect to other suppliers.

Perhaps you can explain it to me. I don't know how you can expect other countries to deny supply when we are out there hustling ourselves. Maybe I am missing something.

Mr. KRATZER. I don't think that we should be out there hustling, Mr. Chairman. I have been on that firing line at times, of trying to persuade other countries to adopt policies that they have some reluctance to adopt. I would feel more comfortable in doing that if I were able to say to them, "You are not going to get by with your policy of applying lower standards because we might just come in and do the same thing, if that is the game that you are going to play."

That wasn't my key point. My key point is—and again, I am indebted to Mr. Poneman—that I believe that we have to make the policy of full-scope safeguards, which I think we have established is widely supported, unanimously supported at this table, a realistic one in terms of what we know is the reluctance, whether they are justified in being reluctant or not, what we know is the reluctance of other countries to go along with it.

I think that standard, significant new commitments, is valid.

Mr. WOLPE. Let me ask you this. If we have reason to believe that a country is planning on considering the secret development of its own nuclear weapons capability—countries such as South Africa—would you still contemplate freely the export of such technologies or components?

Mr. KRATZER. Yes.

Mr. WOLPE. You still would? That wouldn't faze you?

Mr. KRATZER. No, no. Do you mean keep open such exports as the one that has recently been approved——

Mr. WOLPE. Yes.

Mr. KRATZER [continuing]. If I knew that they were not only in possibility but in fact going toward a nuclear weapon? I think I would make my judgment on the basis of what gave me the best chance of influencing that still uncompleted, inchoate decision.

CONSTRUCTIVE ENGAGEMENT WITH SOUTH AFRICA

Mr. WOLPE. I am glad you raise that because it ties in nicely with the other point I had earlier wanted to make, which addresses the administration policy of "constructive engagement" with South Africa.

The whole theory of that is similar to the argument that has been advanced here today; that one gains more leverage and influence with respect to aberrant countries, or countries that are not

as keen to adopt a nonproliferation regime as we would like, by maintaining contact and expanding commercial relationships with them.

It is on that premise that constructive engagement has been pursued. We have done all sorts of things, from loosening some export controls to increasing the numbers of military attachés in our two embassies, and so forth.

I have never understood the logic of that argument from a purely diplomatic sense, because it has always occurred to me that perhaps another message might be heard by the South African Government; namely, that they now have a much freer hand to do whatever they please. They know in advance that there will be no cost to the South African-American relationship from any of their actions, and in fact that they are going to be rewarded by a liberalization of our export trade policies and so on.

Indeed, over the past 3 years, as you are probably well aware, the South African Government has engaged in an extraordinarily intensified pattern of aggression within the region, directed at all of the surrounding countries. Furthermore, the pattern of internal repression in South Africa has intensified, all in the name of constructive engagement.

Unless I am missing something, I think the constructive engagement logic is exactly the argument that is being advanced here today.

Mr. KRATZER. Mr. Chairman, I did not answer your question by saying that I would permit that export. I answered it by saying that I would make my judgment on the basis of which approach, approval or denial, I thought would best give me the chance of changing their mind regarding the development of nuclear explosives. It may very well be that my judgment would be denial.

Mr. WOLPE. Oh, I see.

Mr. KRATZER. I agree, Mr. Chairman, that there is a point beyond which we simply shouldn't go. I think as you put it, the question of what kind of message is being conveyed, is extremely important.

When I suggested earlier that one of the threads of these bills—not your motivation, but one of the threads—is that we would just as soon not have some of these happen, these things happen with our materials, with our technology and so on, I didn't mean to say that that was an inappropriate thing. I think it is a very natural and a very understandable view to take. I personally feel that way about certain things. If it is going to happen, I don't want it to happen on my watch. That carries a message.

I am not in the position to make the judgments. I am not trying to cop out, but I am really not in the position. I don't have access to the information to make the judgments as to whether this particular export that was approved or other similar things is in fact increasing our chances of changing their mind. I hope it is. If it isn't, then perhaps we shouldn't do it.

AVOIDING RESTRICTIONS IN OUR NUCLEAR TRADE

Mr. WOLPE. I thank you for those additional observations, which are very helpful. My point, though, is that one constantly advanced

argument for avoiding these greater restrictions in our nuclear trade is that they would actually weaken our ability to influence those countries that do not accept the nuclear nonproliferation regime.

I am simply using the empirical case of our present diplomacy with South Africa to suggest that may not be the case. Indeed, I think one can argue that such an approach becomes a mythology designed to permit a closer relationship and expanded exports. The diplomatic messages conveyed may certainly be understood differently than intended. In my view, the current South African situation directly challenges the assertion that we can exert greater influence through increased cooperation.

Mr. PONEMAN. Mr. Chairman, I just wanted to make one point about constructive engagement. I think that in at least one way constructive engagement makes even less sense in the nuclear realm than with respect to the South African regime, because although there is not a host of incipient apartheid states around the world, there is a host of potential nuclear weapon states.

So, in response to your hypothetical situation if we saw South Africa moving toward a nuclear weapon, the one thing I would not do would be assist the South Africans in a civil nuclear program. I would try in any way possible diplomatically or with economic pressure to persuade them not to take that final step.

But as soon as you see that South Africa might move toward nuclear weapons, of course, you might be able to buy something politically from them by engaging them in civil nuclear commerce. The problem is that the image is conveyed well beyond the borders of South Africa, and that is the wrong image to convey to other countries.

INDIAN EXPLOSION

Mr. WOLPE. Right, and that raises a whole other foreign policy issue.

Let me ask one last question, if I may, of you, Mr. Porter. You indicated that when you were in the Government some time ago that you had urged that tougher sanctions be applied to India upon their explosion of a nuclear device.

Could you indicate what sanctions you feel should have been applied at that point?

Mr. PORTER. Oh, I think it is almost too late at this point in time. I guess what we really—we didn't have much——

Mr. WOLPE. I was just trying to get some sense of the history here.

Mr. PORTER. We didn't have much leverage of our own because we weren't that deeply engaged in the Indian nuclear program. What I would have hoped that we could have tried to do was to engage the Soviets in accepting with us that this was a major blow to a world nonproliferation regime and the two of us then have taken diplomatic or other sanctions that could have been agreed on at the time.

Now, the Canadians, of course, were the primary commercial nuclear partner in India. They took the ultimate sanction of simply breaking all relationships in the nuclear field. The result was, of

course, that the Indian program was set back several years, simply because the Canadians stopped everything.

I think there could have been a more concerted world effort to make India realize the seriousness with which that step was viewed.

Mr. WOLPE. I am sorry, I may have misunderstood your earlier comment. I thought you had indicated that you had specifically recommended to our Government a set of measures that were not adopted. I was anxious to hear what those recommendations were.

Mr. PORTER. There were several. I can't even remember them all, frankly. Mostly they were in the technical area of stopping cooperation. We didn't have a lot we could stop, frankly, because we weren't that deeply engaged in India.

Mr. WOLPE. And our Government did nothing at that point?

Mr. PORTER. Essentially, I think it is the old story. Whenever the chips are down, nonproliferation is never the determining foreign policy issue. The determining foreign policy issue at that point was quite clearly who becomes the friend or foe of principal nation of the subcontinent. The Soviets did nothing at that point at all, which was a disappointment.

Mr. WOLPE. Mr. Leventhal, did you have a comment?

Mr. LEVENTHAL. On that point, the one really tragic aspect of that is that the degree of U.S. involvement in the Indian nuclear explosion was not laid bare by the State Department. It took 2 years to discover that we had supplied the heavy water that made that particular research reactor operate.

The Canadians provided the reactor; we provided the heavy water. The Canadians took the blame for the reactor; we were silent on the question of the heavy water. It was only discovered 2 years later, through a congressional inquiry process. Had we acknowledged it up front and said that was a misuse of our material and we support and are prepared to do the same as the Canadians are doing, I think the impact on India would have been far greater than just what the Canadians did.

I did want to make just two quick points, one in response to what Mr. Kratzer said before. He suggested that my position had changed in connection with the act of 1978 as it pertains to components, the lesser importance of those. I didn't agree with that concept at the time. I just simply didn't prevail on that point at the time 1978 act was enacted. I felt all exports should have been treated under full-scope safeguards requirement, and still do.

The other point I would like to make is that the act itself does not cause the United States to be in breach of contract. All of the agreements, as far as I know, including the Indian one, indicate that whatever is to be transferred will be by contract.

Each of the contracts states that the contract is governed by applicable law and regulation. The Non-Proliferation Act represented a new law and, therefore, new regulations to restrict things that previously had gone out. As long as the contract states that it is subject to applicable laws of each country, if our law changes and it applies to the contract, we are not in breach of the contract.

Mr. WOLPE. Thank you.

Did you have a comment, Mr. Kratzer?

U.S. DISCONTINUED EXPORTS TO TARAPUR

Mr. KRATZER. I was simply going to say as a matter of historical record that at the time of the Indian nuclear explosion in 1974, the United States did discontinue further exports to Tarapur. It then engaged in a discussion and, in effect, a negotiation in an attempt to obtain stronger assurances that the Tarapur material would not be used in the same way that the research reactor material was used; that is, for a so-called peaceful nuclear explosive.

It did obtain those assurances and it resumed deliveries. It was an actual agreement, an exchange of letters between the United States and India, saying that having these assurances we now will resume deliveries to Tarapur.

So, in effect, what we are talking about here in terms of the freedom of action, let us say, that we had in discontinuing nuclear exports to Tarapur really depends not just on the 1963 agreement and any impact on that of the intervening nuclear explosion of 1974 but in effect the novation of that agreement by a new understanding that having received assurances that they wouldn't use the Tarapur material in the same way we would renew the deliveries.

That is just an historical fact. We did do something. I happen to believe that what was done by Canada, and I think by ourselves, whatever else happened, the nuclear explosion in India clearly put a stop to any new U.S. nuclear cooperation.

Whatever you may believe about whether we should have continued with the implementation of the Tarapur agreement or not, we clearly put a stop to anything new, and there would have been additional nuclear cooperation with India had that not happened.

I think this has cost them dearly. I think it is a mistake to say that sanctions are ineffective, that they have no impact. I hope and believe that is at least one of the factors involved in the restraint that India has shown since its nuclear explosion of 1974. Certainly we are not happy with that event, but I am a lot happier with it having been a one-time event than I would be otherwise.

I also want to add my own endorsement to Mr. Porter's point. I do believe that in 1974 we should have been tougher. In explaining what happened, I was not endorsing it. That was not my watch, Mr. Chairman. I think that was a key event, and it was a time to demonstrate that these commitments—and there was a commitment in the case of the research reactor material. It was ambiguous, and that was unfortunate, but there was a commitment that that material and that reactor would be used only for peaceful purposes.

The Indian Government was informed by us that we would regard the use of that material, plutonium from that reactor, in a nuclear explosive device, however designated, however named, as inconsistent with that commitment. They chose to take advantage of the ambiguity and to do so anyway. I think that we should have been considerably tougher than we were.

Mr. WOLPE. I want to thank all of the witnesses today for excellent presentations and for your patience in responding to all of the inquiries from myself and other members of the committee. We

have done the unheard-of; we have gone through an entire hearing without being interrupted for a rollcall vote on the House floor.

Thank you all very much.

[Whereupon, at 1 p.m., the subcommittees adjourned to reconvene at 10:30 a.m. on Wednesday, October 26, 1983.]

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PROPOSED AMENDMENTS TO THE NUCLEAR NON-PROLIFERATION ACT, 1983

WEDNESDAY, OCTOBER 26, 1983

HOUSE OF REPRESENTATIVES, COMMITTEE ON FOREIGN AFFAIRS, SUBCOMMITTEES ON INTERNATIONAL SECURITY AND SCIENTIFIC AFFAIRS AND ON INTERNATIONAL ECONOMIC POLICY AND TRADE,

Washington, D.C.

The subcommittees met at 10:30 a.m., in room 2172, Rayburn House Office Building, Hon. Clement J. Zablocki (chairman, Subcommittee on International Security and Scientific Affairs) presiding.

Chairman ZABLOCKI. The subcommittees will please come to order.

It is the Chair's understanding that the Republican Members will be coming shortly, so we will begin.

This morning we meet to hear further testimony on legislation to amend the Nuclear Non-Proliferation Act of 1978. Today we will hear testimony from the Nuclear Regulatory Commission, as well as from two Members of Congress.

Last week the Subcommittees on International Security and Scientific Affairs, and on International Economic Policy and Trade, heard testimony from private witnesses on H.R. 1417, the Nuclear Non-Proliferation Policy Act of 1983 and H.R. 3058, the Nuclear Explosives Control Act of 1983.

At this time I would like to welcome our distinguished panel: Congressman Richard L. Ottinger, chairman of the Subcommittee on Energy Conservation and Power of the Committee on Energy and Commerce, and the Honorable Nunzio J. Palladino, Chairman of the Nuclear Regulatory Commission.

Accompanying Mr. Palladino is the Honorable James K. Asseltine, Commissioner, and the Honorable Frederick M. Bernthal, Commissioner.

Congresswoman Lloyd was to have testified today. Unfortunately, she is unable to attend the hearing. She has asked that her statement be included in the record.[1]

The subcommittees welcome you here today. We look forward to your testimony. Does the gentleman from Washington have a statement?

Mr. BONKER. Mr. Chairman, only to state that this is the third in a series of four hearings sponsored by our two subcommittees. I am

[1] See app. 19.

pleased to join you once again in hearing from witnesses on several legislative proposals that are pending before the subcommittees.

As you know, and for the purpose of the record, some of the proposals sponsored by our colleague, Howard Wolpe, were added as an amendment to the Export Administration Act, legislation that is currently before the House of Representatives. The amendments, however, is only one of the provisions contained in the comprehensive legislative proposals by our colleagues. Since we have the chief sponsor of one of those proposals, Mr. Ottinger, before the subcommittees today, I join you in welcoming our colleague, and look forward to his statement.

Chairman ZABLOCKI. Mr. Ottinger, you may begin.

STATEMENT OF HON. RICHARD L. OTTINGER, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEW YORK

Mr. OTTINGER. Chairman Zablocki and Chairman Bonker, I am pleased indeed to testify today on the pending legislation, and want to congratulate you for pursuing this subject which in my view is perhaps the most important legislation before Congress, designed to preserve the survivability of our planet and its inhabitants.

DANGERS OF NUCLEAR PROLIFERATION

I have always viewed the dangers of nuclear proliferation as being much more real and great, and less capable of defense, than is the case of Russian missiles. If the Russians attack us—it is very unlikely because they know we can retaliate. But if some group of terrorists who are all too apparent on the face of the Earth today were to get hold of nuclear weapons, if indeed the fanatics who blew up our marines in Lebanon had available to them nuclear weapons, the ability to be able to counteract that kind of a threat defies the imagination, and the devastation that could be wreaked upon the entire world is just enormous.

So I think that the pursuit that you are following is just of critical importance.

On May 18, 1983, Senator Gary Hart and I introduced the Nuclear Explosives Control Act of 1983 that would restore the leadership role of the United States in nuclear nonproliferation and require that new initiatives be undertaken leading away from our disastrous present course.

I am also pleased to be a cosponsor of H.R. 1417, sponsored by my friend from Michigan, Howard Wolpe, a bill which is consistent with the legislation that I have introduced, and which I am very pleased was adopted in the House.

I would like to emphasize, however, that the Wolpe bill was only capable of doing that which was within the jurisdiction of the Export Administration Act.

EXPORT OF REPROCESSING AND ENRICHMENT EQUIPMENT

There are a great number of really critical matters which are dealt with in my legislation that were not covered. That includes the export of the reprocessing, and enrichment equipment from which bombs can be made. It includes the great need to close loopholes in the Non-Proliferation Act, the existing framework of law,

which permit us to encourage other countries to send U.S.-origin material to countries which would be prohibited from receiving it from us under the Non-Proliferation Act.

It does not address the questions of using U.S. companies' foreign subsidiaries to circumvent the Non-Proliferation Act—and tightening up on the regulation of parts export as is proposed in the legislation.

So while I think the Wolpe legislation is a giant step forward, and I am an enthusiastic supporter, I don't think the passage of that legislation by any means can leave us with a feeling of complacency that the loopholes have been plugged and that the United States and the world are secure in an adequate nonproliferation legal framework.

THE NEED FOR BIPARTISAN NONPROLIFERATION POLICIES

Before the present administration, every American President sought to control the proliferation of nuclear weapons primarily by controlling access to both nuclear explosive materials—highly enriched uranium and plutonium—and to the enrichment and reprocessing technologies which produce them. This bipartisan approach is embodied in the Nuclear Non-Proliferation Act of 1978.

The legislation before you today has become vital because President Reagan has turned away from the resolute, bipartisan nonproliferation policies of Presidents Carter, Ford, and Nixon. The current administration seeks to export certain technologies essential to the production of nuclear weapons materials to nations that currently do not possess a nuclear weapons-making capability.

This administration also proposes for the first time to grant countries long-term approval to reprocess U.S.-origin nuclear fuel and extract plutonium, even though the IAEA and the NRC have found that safeguards cannot in every case assure timely warning of a diversion to weapons production, and it is increasingly evident that the use of plutonium as a fuel for nuclear reactors is unnecessary and uneconomic.

INADEQUATE SAFEGUARDS

I would like to divert from my prepared statement to say that in hearings before me last year, Chairman Palladino affirmed the existing IAEA resources could not assure timely warning of diversion of plutonium from bulk handling facilities such as reprocessing plants. He and the other commissioners asked for a clarification of the authority of the Nuclear Regulatory Commission to inquire into the adequacy of safeguards in issuing export licenses.

I recommend that the legislation that I drafted be amended to provide this authority. It was in the legislation as originally drafted, and was dropped in the course of negotiations with the Senate.

But I think in view of the NRC's opinion that you cannot in every case assure timely warning for which the entire safeguards framework was set up, it is essential that the NRC be given explicit authority, and its authority at the present time is ambiguous in this respect. Not only do we assure that safeguards may exist, but with respect to these new facilities that can produce plutonium or highly enriched uranium from which bombs can be quite readily

made, that the NRC be given with respect to its licensing authority the specific authority to inquire as to the adequacy of safeguards for particular uses.

EXPORT OF SENSITIVE NUCLEAR TECHNOLOGY

The export of sensitive nuclear technology by the United States presents precisely the wrong example to other countries. Our past restraint in not exporting reprocessing and enrichment technology has brought similar restraint on the part of the nuclear supplier countries, most significantly commitments of West Germany and France not to engage in further exports of these technologies, in the case of Germany to Brazil, in the case of France to South Korea and Pakistan.

The argument with which we are always confronted is if we do not export these technologies that other countries will, and that the policy of restraint of the United States is only one which damages our industry and gives other countries a competitive edge.

After India exploded a nuclear device using U.S.-supplied and Canadian-supplied materials in a research reactor, the entire world was really brought up short, sensitized to the problems of proliferation from the civilian export program, and in point of fact, Germany and France did exercise restraint. If the United States now abandoned its position as a leader in this respect, it is certain that Germany and France will not exercise restraint.

EUROPEAN ALLIES CONCERN

We have had a great deal of difficulty with our European allies in this respect, and I think it is of highest priority, and I would even contemplate adding something to this legislation calling for the United States to convene a conference with the other supplier countries to see if we cannot get a greater cooperation with our allies in this respect.

Abandonment of restraint on our part would inevitably lead to abandonment of restraint on the part of other countries, would invite sensitive exports by such emerging or potential suppliers as Japan, India, Argentina, and South Africa. We must state as strongly as possible that the United States will not support nor engage in the export of technologies that have the potential for direct application for nuclear explosive purposes. It is time also to seek agreement with all other supplier nations to do likewise.

H.R. 3058 provides such an unambiguous U.S. example by banning the export from the United States of enrichment, reprocessing, and heavy water plants, as well as sensitive nuclear technology and other materials important to the design, construction or operation of such plants.

EXPORT OF COMPUTERS TO SOUTH AFRICA

Recently the export of two powerful computers applicable to nuclear weapons design was approved to South Africa, despite South Africa's refusal to accept full-scope safeguards. The Department of Commerce also approved the export by an American company of a powerful computer, via Belgium and Switzerland, for use in an Ar-

gentine heavy water plant, even though Argentina likewise has refused to accept safeguards on all its nuclear activities.

I would like to introduce in the record at this point a letter which Chairman Palladino of the NRC wrote objecting to the granting of this license to Argentina without proper consultation with the Nuclear Regulatory Commission.

Chairman ZABLOCKI. Without objection, so ordered.[1]

STRENGTHENING NUCLEAR EXPORT CRITERIA

Mr. OTTINGER. H.R. 3058 would strengthen nuclear export criteria for all Federal agencies to insure that nuclear exports go only to those nations that accept international safeguards inspections on all their nuclear activities—that is, full-scope safeguards—and have nuclear cooperation agreements with the United States.

With regard to nuclear exports, I was pleased to support the amendment to the Export Administration Act offered by Mr. Wolpe, and subsequently supported by a majority of Members of the House of Representatives. That amendment would assure that exports of important nuclear technology and dual-use items go only to countries that agree to open all their nuclear facilities to international inspections.

The additional provisions of H.R. 3058 would further strengthen our export policies. Some of those additional measures I outlined at the outset of my testimony. Since this legislation was introduced in May 1983, a number of events have occurred that must be addressed by legislation.

CHADA DECISION

One is the *Chada* decision by the Supreme Court that, in effect, struck down the legislative veto by concurrent resolution. I would note that eight of the nine legislative vetoes present in the Nuclear Non-Proliferation Act that provide congressional review of key executive branch decisions on nonproliferation matters are by concurrent resolution.

The decisions made thus far by the Reagan administration are themselves persuasive arguments for the full restitution of Congress role and the limitation on Presidential waivers so carefully placed in the act in 1978.

My own preference would be to eliminate the Presidential waiver altogether and require the President to come to Congress if he seeks specific authorization for sending sensitive nuclear materials to countries that don't have full scope safeguards. The alternative would be——

PRESIDENTIAL WAIVER

Mr. BONKER. Mr. Ottinger, are you talking about the Presidential waiver in the Wolpe amendment to the Export Administration Act?

Mr. OTTINGER. The Presidential waiver that exists in a number of places in the Non-Proliferation Act.

[1] See app. 11.

Mr. BONKER. Also in the Wolpe amendment?

Mr. OTTINGER. It carried that forward, and I recall whether it carried it forward in the form of a concurrent resolution. If it did, it is vulnerable.

I don't recall. But in the Non-Proliferation Act, and in the Wolpe amendment, wherever it occurs, where there are overrides of Presidential actions by concurrent resolution, we need either to eliminate that or to provide for a joint resolution.

Mr. BONKER. It provides that the restrictions would not apply in a particular case if the President determines by Executive order that to apply the provision would be seriously prejudicial to the achievement of the U.S. nonproliferation objectives.

You would like to see that Presidential waiver removed?

Mr. OTTINGER. There is no congressional override as there was then.

Mr. BONKER. In addition, the restrictions will not apply if at least 60 days before the export, retransfer, or other activity authorized is carried out, the President submits an Executive order, together with reasons for his determination, to the Congress. So there is no congressional override.

Mr. OTTINGER. In the structure of the Non-Proliferation Act there is a provision for Presidential waivers and then for congressional override by concurrent resolution. That has been struck down by the Supreme Court.

I think we would be better off requiring the President to come to Congress for specific authorization in what seems to me to be very dangerous circumstances, so they would have to fully justify it and there would have to be an act of Congress to authorize a specific sale. The alternative is to allow the Presidential waiver, which would be subject to override by joint resolution, which he would have to sign. That obviously is much weaker protection against unwise shipments of sensitive nuclear material than elimination of the waiver would provide.

The Reagan administration is attempting also to exploit another loophole in the Nuclear Non-Proliferation Act which has recently become evident.

REEXPORT OF TECHNOLOGY

In my view, the reexport of technology and materials that were originally transferred or exported from the United States, such as parts for the Tarapur reactor and heavy water for Argentina, clearly should be subject to the same stringent export criteria as the original export. I urge these subcommittees to address these problems as this legislation is considered.

But a nuclear policy that relies solely on disincentives and prohibitions is too negatively cast to be effective in achieving U.S. nonproliferation goals. Our legislation therefore does recommend very strong incentives for other countries to pursue those goals.

Market forces and economic incentives can also be instrumental in achieving such objectives. There need to be positive assurances and technical assistance programs which make it worthwhile for other countries to forgo the development of sensitive nuclear technologies and the use of plutonium-based fuels.

World energy developments are right to make fuel assurance programs work. Uranium is in enormous surplus supply, prices are very low, and U.S. enrichment plants have enormous and costly excess capacity. We can, therefore, make attractive offers of long-term fuel commitments to foreign countries which are willing to subscribe to our nonproliferation goals. A properly formulated program could make the United States the world's foremost reliable supplier of low-enriched uranium.

INCENTIVES OF H.R. 3058

H.R. 3058 offers to nations which agree to forgo development of reprocessing and enrichment facilities and the use of separated plutonium the following major incentives:

Substantial discount on the price of U.S. uranium enrichment services for low-enriched uranium fuel, which is unsuitable for nuclear weapons. We would propose to supply the low-enriched uranium at our cost;

A further discount on the enrichment price for nations agreeing to run reactors on specially improved low-enriched fuel that conserves uranium, reduces spent fuel generation, and lowers the production of the residual byproduct, plutonium;

A single, lifetime export license to assure supplies of low-enriched uranium fuel sufficient to meet the full requirements of all their nuclear powerplants, the fuel to be provided in shipments sufficient to operate each plant for 3 years at a time;

Technical assistance to increase the fuel efficiency of light water reactors and thereby reduce inventories of the residual byproduct, plutonium;

Technical assistance to resolve nuclear waste management problems, including the storage and disposal of spent fuel; and

Technical assistance in developing alternative, nonnuclear energy sources.

The United States is in a position unique among the world's nuclear exporting countries to offer these incentives. We have the technological means and capacity to provide substantive world leadership in the use of nuclear technology which clearly possess less severe risks of proliferation.

TECHNOLOGICAL HEAD IN LIGHT WATER REACTERS

Today we have a 2- to 3-year technological lead, worldwide, in improving the fuel efficiency of conventional, light water reactors.

I have struggled mightily to get this to the attention of Congress. We now have the support of Marilyn Lloyd's subcommittee in pursuing this. But the administration has consistently tried to cancel the program. It is just incredible to understand why.

The DOE and U.S. fuel vendors are now jointly demonstrating improvements which can reduce uranium consumption by 15 percent and spent fuel generation by 40 percent, and operating costs and hence costs to consumers by a significant amount, estimated by the Department of Energy to be approximatley $13 billion in the United States alone by the year 2000.

I have not been one of the most enthusiastic supporters of nuclear energy in Congress but have always taken the attitude that pro-

vided adequate safety is provided that we ought to let the marketplace determine the future of nuclear energy. And here you have the capability of making fission reactors vastly more efficient, vastly more economical, perhaps revising the industry in our own country, and DOE had proposed to slash the program by two-thirds.

It offers the potential of permitting us to be the leader in the world in this technology for the future. To me that is just absolutely incredible. It is done, I suppose, on the ideological basis that if we have improved fission reactors, that the need for breeder reactors is pushed off even further into the next century.

Interest in improving the fuel efficiency of conventional reactors is not confined to the United States. France, West Germany, Sweden, and the Soviet Union all have aggressive programs to extend the usefulness of uranium fuel. Further technology improvements are feasible which can cut uranium fuel consumption even more dramatically.

One year ago I testified before these subcommittees that Westinghouse and Mitsubishi Industries of Japan agreed to jointly design an advanced LWR which can reduce uranium consumption by 25 percent. Recently General Electric, Hitachi, and Toshiba Industries concluded a similar agreement.

It is becoming apparent that fuel-efficient, advanced designs of conventional power reactors are a more promising and economically attractive alternative to breeders, and if we don't pursue this technology, it is also apparent we are going to be in another situation where our failure to do so is going to result in other countries taking over that technology and causing economic damage to the United States.

It is also becoming clear that nations willing to supply these advanced designs will emerge as the world's principal suppliers of nuclear technology in the future.

The Reagan administration, while promoting the unnecessary and wasteful breeder, also has sought to terminate the U.S. program to improve the fuel efficiency of conventional power reactors. Ironically, it seems determined to hand over future world markets to our competitors in Europe and Japan, many of whom may require far less stringent safeguards on their exports.

STATUS OF NUCLEAR INDUSTRY

I would just like to review with you a little bit some updates I requested and received on what the actual economics of this industry are at the present time.

In 1970, the Atomic Energy Commission forecast 1,200 gigawatts of nuclear plants would be in operation in the United States by the year 2000. In 1983, the Department of Energy estimated approximately 120 gigawatts, or one-tenth the previous estimate.

For the world, the figures are, the 1970 estimate of 2,000 gigwatts, and in 1982 the red book of OECD forecasts only 585 to 804 gigawatts. Recent U.S. revised forecasts for the world are 300 to 500 gigawatts by the year 2000, and the Uranium Institute has just given a forecast of only 300 to 500 gigawatts by 1995.

Take a look at the uranium supply. In 1982, DOE estimated over 4 million tons of high grade, up to $100 per pound, U_3O_8 in the

United States. The current uranium price is only about $20 per pound. So much uranium exists that the Department of Energy and the uranium industry don't even bother to look for or make estimates of the amount of uranium that would exist in the $100 to $200 per pound price range, which is the price range at which breeder reactors would become economic. But it is likely that over 5 million tons of uranium would be available at this $100 to $120 per pound category in the United States.

In the world the picture is the same. Uranium is in huge oversupply. There is a good chance there is as much as 20 million tons available at $100 per pound or less.

One recent find in Australia alone, will add 1 million tons. The situation is so critical that Senator Domenici is asking us to put controls—import controls on foreign uranium into the United States to preserve the U.S. industry. The need for breeders is just absolutely out of sight.

Let me also point out that a 1,000-megawatt reactor today uses about 6,000 tons of uranium in its 30-year lifecycle, but with the improvements that are available today to these reactors, those same improvements that the Department of Energy does not want to pursue, you could produce reactors that require only about 4,200 tons of uranium for the 30-year lifecycle. The supply, therefore, of existing uranium worldwide and in the United States could be extended by these reactors at far less cost than we have today, out to the end of the next century.

A current analysis of breeder economics was done in 1982 at Los Alamos Laboratories in the United States. It shows that the price of uranium at which a breeder becomes economic is at $165 per pound compared to the $20 per pound that uranium is presently available at on the world market.

The importance of this from the proliferation standpoint is that the economics of proceeding with the fuel cycle, with reprocessing, just plain isn't there. It is not there for Japan, it is not there for Europe. France has canceled the five add-ons that it planned to have for its Super Phoenix, and is only going forward with one model. And if we can bring these improved fission reactors on line, then I think that we can persuade the rest of the world that it is in its own tremendous economic advantage to do away with the dangerous highly enriched uranium and plutonium reactors and proceed with fuel that will not lend itself to the production of weapons.

I think that is a tremendous change in the circumstances from that which was contemplated a number of years ago. And the Department of Energy is still proceeding as if the former state of affairs were prevalent, not taking into account the huge changes that have taken place, both with respect to reactor technology and with respect to the availability of uranium.

Together, improvements in enrichment and reactor technology could reduce by about one-half the uranium required by today's inefficient uranium-guzzling fission reactors. Such technology is orders of magnitude safer and better suited to the world's needs than the breeder reactor and plutonium technologies now being, unfortunately, peddled by the Reagan administration.

NEED FOR COMMON NUCLEAR ENERGY POLICY

It's high time that the United States and other nuclear supplier nations formulated a common nuclear policy which promotes the improvement of existing uranium technologies and which avoids technologies which rely on the use of nuclear explosive plutonium for fuel, and, most particularly, which prohibit export of such dangerous technology. Such a policy would simultaneously be responsive to the vast security disadvantages involved in the use of plutonium and the large economic advantages of improvements to conventional nuclear plants.

ALTERNATIVES TO PLUTONIUM

Specifically, the United States should offer strong economic and technical incentives as a more attractive alternative to using plutonium. We can and should use our idle enrichment capacity to better make available secure, economic supplies of low enriched uranium fuel, unsuitable for weapons use, to nations which agree to forgo activity in plutonium use. The United States must use its leadership in world trade to promote the use of the safest, most economic forms of nuclear technology and persuade other nuclear supplier nations to follow our lead. Our willingness to supply low enriched uranium at cost and under long-term, assured licenses would give us substantial leverage in reaching our nonproliferation objectives.

I thank you for your patience in hearing me cut on this matter; again, for your interest in pursuing this legislation.

Chairman ZABLOCKI. Thank you for your statement, Mr. Ottinger.

In your remarks, you have to some extent responded to the Administration's contention that limited nuclear cooperation with non-NPT countries like Argentina and South Africa allows the United States to maintain a position of influence with respect to their troublesome nuclear problems.

You don't agree with the administration. In fact, to sum up your testimony, you believe that with incentives and alternatives the United States can indeed keep its low-grade uranium export markets and be a reliable supplier over the period of the years to come. But in the bill, H.R. 3058, I understand there are restrictions on dual use items.

GAO REPORT ON DUAL USE ITEMS

The General Accounting Office recently published a report on exports of so-called nuclear dual use items from the United States. The report notes that most supplier countries do not apply the stringent controls to these items that the United States does, and that in some cases, notably for computer exports, no controls are applied to these items for nonproliferation reasons.

In this light, what will be the effect of requiring more restriction on export of computers and other items from the United States as you call for in your bill?

Won't countries like India and Israel, for example, simply buy these dual use items from elsewhere, barring the development of a

consensus among supplier countries that these items should be more carefully controlled? Our track record in trying to get other countries to comply with our controls has not been very successful.

Would you care to comment?

Mr. OTTINGER. Well, I think it is a major concern, that some of the supplier countries have not been as careful with respect to proliferation as the United States has in the past. I think the answer is to raise this question to a much higher level of priority in our international negotiations.

TERRORIST THREAT

I just think that the prospects of a Yasser Arafat or Mu'ammar Qadhafi getting hold of nuclear weaponry, or many other terrorist groups that are operating in the world today, red brigades in Italy—there is a lot of that going on—is just such a paramount danger that we cannot say other countries are doing it, so the answer to the problem is we will do it, too, and then it is never explained how this next step comes about—by doing it we will have more leverage and ability to control proliferation if we are not in the ball game.

I have never been able to understand that, because that next step is never spelled out, is in fact never exercised. All it means is we enter an international competition to see who can sell more dangerous materials to less responsible countries. It seems to me we ought to be going in the other direction and exercising leadership and restraint and using our various forms of leverage with our so-called trading partners to get them to realize the dangers to which they are subjecting themselves and the rest of the world by not exercising care.

A very persuasive tool for doing this is the prospect that is raised in this legislation of undercutting their market for enriched uranium. While this is not expressed that way at the present time, the current situation is such that the European countries find themselves with a great surplus of enriched uranium available to them and are dumping it on the marketplace.

In terms of the long-term and very large supplies that we still produce, we produce something like 60 percent of the world market.

We have the potential there to really recapture that market altogether with the technologies that are coming into fruition within the next 3 or 4 years. And our willingness to use that leverage could very well persuade them from an economic standpoint that it is in their interests to cooperate if we cannot persuade them just on the basis of the safety and preservation of the world that it is important for them to do that.

But our efforts ought to be to seek to get the other countries to stop, not it seems to me to get in the competition with them to supply dangerous materials.

Chairman ZABLOCKI. Well, I hope we could be successful in getting them to stop.

WOLPE AMENDMENT TO EXPORT ADMINISTRATION ACT

At this point, I'd like to comment on the Wolpe amendment to the Export Administration Act which you have referred to.

However, I was not necessarily opposed to the substance of the amendment. I voted against the Wolpe amendment because my first interest was in getting the Export Administration Act passed through Congress, and the amendments which should have been considered on their own merits would make it more difficult, if not impossible, to get the bill through both Houses of Congress and signed by the President. I want the record to show that that is why I voted against the Wolpe amendment.

Mr. Bonker.

Mr. BONKER. I would like to take this opportunity to commend the gentleman for his work on nuclear nonproliferation. I definitely agree with you that it is one of the paramount issues of this Congress.

I think it is obvious by your testimony that you are fully knowledgeable and totally committed to the issue and certainly have provided the leadership for Congress to do something about the proliferation of nuclear technology and equipment throughout the world.

The chairman noted his reasons for opposing the Wolpe amendment to the Export Administration Act and I would like to associate myself with his remarks. Our objection was not to the substance of the amendment, but rather to the vehicle; we did not believe that the Export Administration Act was the proper vehicle on which to attach the safeguards requirements. The Export Administration Amendments Act is an extremely complicated and controversial bill, whose chances for timely congressional action and White House approval are already limited.

I gather by your comments that you don't feel that the Wolpe amendment in and of itself is enough—that you want a more comprehensive approach to the subject of nuclear proliferation.

I understand that as part of this more comprehensive plan your bill adds a new restriction on the exercise of the U.S. prior consent rights as the question relates to the reprocessing of U.S.-origin spent fuel.

Mr. OTTINGER. That is correct.

Mr. BONKER. Although prior consent is now required for reprocessing I don't know of any instance where this administration or any administration has actually disapproved a prior consent notice or request that has been submitted to the United States.

BAN ON RETRANSFER OF SPENT FUEL

It is true that your bill would is to in effect ban the transfer, the retransfer of spent fuel for reprocessing purposes as long as it relates to commercial purposes, but not necessarily for research or demonstration purposes. Can you clarify that?

Mr. OTTINGER. We grandfather in those agreements that have already been made, specifically with Japan, for supplying materials to a research reactor, feeling it would be in bad faith for us to cancel an existing arrangement. For research reactors, we do suggest that fuel ought to be converted to nonweapons grade fuel as

soon as that preferable fuel is available, which I understand within the next year or two will be ready for use in research reactors.

Mr. BONKER. Let me ask you an obvious question.

If the purpose is to limit or hopefully put an end to reprocessing, and you would allow the transfer or the retransfer of U.S.-origin spent fuel for the purpose of research, development, demonstration, you are, in effect, inviting that country to develop its own reprocessing capability, are you not?

Mr. OTTINGER. I think that we don't grant any wholesale authority in this respect. All we do is grandfather in the existing agreements that we have. I think that is only with Japan. And even there we provide that if plutonium is available elsewhere, they should use that, and that when enriched uranium of a character that would not be suitable for weapons purposes becomes available, that should be substituted.

We are faced with the embarrassment of having an existing arrangement which I don't think is a good one, but which we didn't feel that we could unilaterally abrogate.

Mr. BONKER. Please take this opportunity to clarify for the record of your intent, if I am correct, but I thought that your legislation, by adding these new restrictions, would, in effect, prohibit the retransfer of spent fuel for reprocessing purposes for commercial use, but allow it for noncommercial purposes, like research demonstration. If that is true, my question again is that the incentive implied in our language is that these countries would then proceed to develop their own reprocessing capabilities.

GRANDFATHER PROVISION ON EXISTING CONTRACTS

Mr. OTTINGER. If that is what the legislation says, it ought to be changed. But my understanding is that we only grandfathered in the existing contracts, that we did not permit this retransfer for research purposes except in that situation which already exists. Perhaps you would want to take another look at that.

My view is that reprocessing is dangerous and unnecessary and expensive, and it ought to be discouraged to the maximum extent possible. You folks are better experts at international relations than I am. If that can be done as affects existing arrangements with Japan, without violating international law, then I think it ought to be pursued.

Certainly the administration could reopen negotiations with Japan in that respect.

Mr. BONKER. For the record, I would note on page 6 of your bill that you provide the exception, if the Secretary determines that the end-use of the material reprocessed or retransferred involves application for research, development, or nondemonstration purposes. I think we can pursue that matter at the staff level and try to remove any possible incentive for countries to develop their own reprocessing capability.

SWISS NUCLEAR TECHNOLOGY

The only other question I have concerns recent cancellations by the Swiss of nuclear technology contracts because of the prior consent requirement. At one time, the United States possessed a mo-

nopoly on reprocessing technology but with market patterns today, that has declined to roughly one-third. Thus, the smaller amount of technology that we export, the less influence we will have on the potential control of that technology in the future.

I don't know how we deal with these problems, but if we so reduce our capability in the international marketplace, are we not opening up for more abuses elsewhere, where the other countries don't share our sensitivity to the problem?

Mr. OTTINGER. Well, in the enrichment area, the new technologies for advanced centrifuge on laser isotope separation look like they are going to come through at such reduced prices, such greatly improved economics, that in the timeframe of 1989 to 1990, we will again be in a position to predominate that particular marketplace.

The other thing that is becoming rapidly apparent is that reprocessing and breeder reactors are more and more becoming grossly uneconomic, and that indeed the Super Phoenix may be the second Concorde where France will have succeeded in developing a totally noneconomic technology. That would be hastened very greatly by the pursuit of the improved fission reactors to which I referred in my testimony.

Again, we have a potential to recapture the marketplace and to exert a great deal more influence, and the rest of the world knows this. So that I think that at least for the future—we did get into a position where our predominance was severely eroded—but I think for the future, the future is bright in terms of our being able to play the most important role, both in the technology and through that control of the technology and being able to discourage proliferation.

Chairman ZABLOCKI. Mr. Hyde.

Mr. HYDE. I have no questions.

Chairman ZABLOCKI. Thank you, Mr. Ottinger.

Mr. OTTINGER. Thank you, Mr. Chairman.

If I could, I would like to supply for the record a more detailed response to your question.

Chairman ZABLOCKI. Without objection.

Mr. OTTINGER. With respect to the authorities on retransfers.

Chairman ZABLOCKI. Without objection.[1]

I will renew my unanimous consent request that Congresswoman Llyod's testimony be included in the record.[2]

Chairman ZABLOCKI. We will next hear from the Honorable Nunzio J. Palladino, Chairman of the Nuclear Regulatory Commission, and his associates, Mr. Frederick M. Bernthal and Mr. James K. Asselstine.

STATEMENT OF HON. NUNZIO J. PALLADINO, CHAIRMAN, NUCLEAR REGULATORY COMMISSION

Mr. PALLADINO. Thank you, Mr. Chairman.

Chairman Zablocki and Chairman Bonker, with me this morning are my two colleagues, Commissioner Asselstine and Commissioner Bernthal.

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[1] See app. 12.
[2] See app. 19.

We also have several members of the staff here to help us respond to questions.

NRC COMMENTS ON LEGISLATION

I am pleased to have the opportunity to provide the Commission's comments on H.R. 3058 and H.R. 1417, two bills which are intended to strengthen further the nonproliferation provisions of the Atomic Energy Act.

Today I propose first to comment briefly on the bills from the Commission's perspective. I would then like to provide the Commission's views on the status of current U.S. nuclear export arrangements.

Finally, I will mention two other areas where NRC is contributing to the U.S. Government's nonproliferation efforts.

With respect to the two bills under consideration, I should note that the Commission's comments are based on our experience in implementing the nuclear export provisions of the Atomic Energy Act, as amended by the Nuclear Non-Proliferation Act of 1978. The NNPA established a strong foundation for the implementation of stringent controls on U.S. nuclear export-related actions.

In considering the Commission comments on these bills, please note that our primary function is to license the domestic nuclear industry in order to insure the health and safety of the public. While the Commission is responsible for issuing export licenses for major nuclear commodities and for consulting with the executive branch on other nuclear export-related actions, we do not participate in the establishment of U.S. nonproliferation policy, which is the responsibility of the executive branch and the Congress. Accordingly, our comments on these, like previous legislative proposals, focus primarily on those areas which would affect NRC's statutory licensing and consultative responsibilities.

NRC POSITION ON NUCLEAR EXPORT COUNTRIES

In general, NRC shares the objective, expressed in H.R. 3058 and H.R. 1417, of assuring adequate controls over sensitive nuclear exports, including reducing the use of highly enriched uranium fuel in research reactors and placing appropriate restrictions on sensitive U.S. nuclear exports.

At the same time, we note a number of practical problems which, in NRC's view, raise questions as to the desirability of several proposed changes.

For example, section 6 of H.R. 3058 and title II of H.R. 1417 would establish a requirement for the Commission to make significant new determinations prior to approving future exports of high enriched uranium. The Commission questions whether these new requirements are necessary, particularly in view of the subjective nature of some of the determinations and also in view of the very strict executive branch and NRC review requirements already established for HEU exports.

POTENTIAL PROBLEMS WITH U.S. AFFILIATES

Section 18 of H.R. 3058 would require NRC licenses for certain international nuclear activities involving affiliates of U.S. firms. While the Commission shares the concern that these activities by U.S. affiliates could sometimes conflict with U.S. nonproliferation objectives, we note the formidable practical difficulties in implementing the proposed new requirements. The Commission has other comments on the proposed amendments, but since they are rather detailed and technical, I request that the Commission's letters of June 28 and September 1, 1983, which contain our complete comments, be included in the record of this hearing.

Chairman ZABLOCKI. Without objection, so ordered.[1]

Mr. PALLADINO. Thank you, Mr. Chairman.

I would now like to discuss briefly the Commission's views on the status of current U.S. nuclear export arrangements. As you are aware, the administration of U.S. nuclear export activities is an extremely complex process involving four separate agencies. NRC is, of course, one of these agencies and was assigned nuclear export responsibilities by the Congress primarily to provide additional assurances that U.S. nuclear exports are in accordance with U.S. statutes and policy guidelines. NRC carries out these responsibilities in two major ways.

First, we are the final licensing authority for certain major nuclear commodities, such as reactors, major components, and fuel.

Second, we consult with the executive branch on other nuclear export-related actions, such as nuclear technology exports, agreements for cooperation and retransfers of U.S.-origin export-licensed commodities.

ROLL OF NRC IN LICENSING

With regard to NRC licensed exports, my colleagues and I believe NRC has played a useful role in assuring that proposed exports are reviewed comprehensively and that the accompanying analyses fully address all relevant factors.

We recognize that, in nonproliferation matters, one cannot expect universal agreement on all decisions reached, but we believe that the existing statutory framework allows for appropriate consideration by the commission and other agencies of the important factors involved in export licensing determinations.

NRC CONSULTATIVE RESPONSIBILITIES

With regard to the Commission's consultative responsibilities with the executive branch, we are satisfied that the executive branch agencies generally have provided the Commission with all necessary information on a timely enough basis for the Commission to make appropriate comments.

The Commission notes, however, that a recent retransfer request involving heavy water for Argentina was not subjected to the full interagency review process.

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[1] See apps. 13 and 14.

The Commission has discussed this matter with the executive branch and has received assurances from the Department of Energy that all future heavy water, as well as reactor component retransfer requests, will be subject to full interagency review.

This should avoid further occurrences of this sort.

The Commission is also exploring ways to improve its ability to provide comments at an earlier stage on proposed new or revised agreements for cooperation in order to improve the effectiveness of NRC's comments.

The Commission has also expressed concern over the lack of adequate time and information to consult on a group of recent approvals transferring nuclear technology and assistance to South Africa's Koeberg reactors. As in the heavy water case, we are discussing the matter with the executive branch in order to avoid future similar occurrences.

Before concluding, I would like to note two examples of current NRC activities which are separate from our standard export review responsibilities but which also contribute to the U.S. Governments nonproliferation activities.

SAFEGUARD IMPROVEMENTS

First, the Commission continues to work closely with the executive branch on a wide range of activities in support of safeguards improvements.

Included in these activities are: One, the program to apply IAEA safeguards on selected U.S. nuclear activities as a result of the U.S. safeguards agreement with the IAEA; two, participation in interagency working groups on improving IAEA safeguards measures; three, participation in the development and presentation of the safeguards training courses required by title II of the NNPA; and four, participation in an observer status in bilateral safeguards meetings with officials from France, Japan, the United Kingdom, and West Germany.

The bilateral safeguards meetings were initiated by the Arms Control and Disarmament Agency in cooperation with the Departments of State and Energy in order to facilitate closer cooperation and better mutual understanding of respective safeguards problems and activities.

PROPOSED CHANGE IN LICENSING REGULATIONS

The other activity I would like to mention is the Commission's current review of selected changes to our export licensing regulations as contained in title 10, part 110 of the Code of Federal Regulations.

The more significant changes under consideration include:

One, permitting the export under a general license of reactor components to selected countries which support U.S. nonproliferation objectives;

Two, deleting primary coolant pumps and control rods from the list of reactor components defined as utilization facilities for export licensing purposes;

Three, expanding the general license for the export of byproduct materials, for example, Californium-252 and other isotopes with an atomic number greater than 83; and

Four, increasing the general license limit for source material from 1 kilogram to 10 kilograms.

Other proposed changes would further clarify and simplify export license application procedures and specify that license amendments are not required for certain changes involving intermediate consignees.

The staff has concluded that these changes can be made without adversely affecting current export control statutory and policy guidelines.

While several of the proposed changes are still under active discussion by the Commission, I hope we will be able to decide upon publication of these amendments as a proposed rule in the near future, after which we would welcome any comments the Congress and the general public may have on them.

This concludes my prepared testimony. I will be pleased to respond to any questions you may have.

Chairman ZABLOCKI. Thank you, Chairman Palladino.

You have stated that the NRC has concerns about the legislation pending before the subcommittees. However, you feel that you should not go into detailed comment on the proposals. Do you see some practical difficulties?

Mr. PALLADINO. Yes, sir.

WAYS TO REDUCE HIGH ENRICHED URANIUM

Chairman ZABLOCKI. Realizing that the NRC is primarily a licensing agency, does the Commission have a view with regard to the best way of reducing the quantity of highly enriched uranium research reactor fuel in the United States and abroad?

Mr. PALLADINO. Well, we have been encouraging followthrough on the research reactor enrichment reduction program, and we have been granting licenses involving highly enriched uranium for research reactors only when there is a clear need to do so, recognizing the fact that we are allowing these exports only for countries that have full scope safeguards.

Chairman ZABLOCKI. On page 6 of your prepared testimony you refer to selected changes in licensing regulations.

When were they proposed, when do you expect to have them published, and how much time will there be for public and congressional comment?

Mr. PALLADINO. The suggested changes to part 110, I think, have been pending before the Commission for a number of months.

Perhaps you recall.

STATEMENT OF JAMES K. ASSELSTINE, COMMISSIONER, NUCLEAR REGULATORY COMMISSION

Mr. ASSELSTINE. They were pending before the Commission at the time I joined the Commission—which is a little over a year ago, so I think it was probably about 1½ years ago, Mr. Chairman, that the part 110 proposals were first submitted to the commission.

They have never been issued as yet by the Commission as a proposed rule.

Chairman ZABLOCKI. But the Commission will have the new regulation published in the Federal Register?

Mr. ASSELSTINE. Yes, sir, they will be once they are approved by the Commission, that is right.

PROCEDURE FOR APPROVING REGULATIONS

Chairman ZABLOCKI. Who, besides the Commission, must approve the changes? Are there other agencies that have to initial the changes?

Mr. ASSELSTINE. These are amendments to our regulations so only the Commission would have to approve them.

Mr. PALLADINO. However, we would accept comments from other agencies as well as from members of the public and members of the Congress.

Right now the amendments are being held up in part because I, for one, have not cast my vote yet. I have been asking for additional information that would help me make a decision on whether or not to include control rods and reactor coolant pumps in the list of major components of a reactor and that material was forwarded to me while I was out of the country, and I have not had the chance to read it, but, as soon as I do, I hope to be able to vote

I am not sure how we stand on other votes.

Chairman ZABLOCKI. On an average, how many export licenses for highly enriched uranium does the Commission review each year?

Mr. PALLADINO. Maybe that would be better answered by Mr. Shea of my staff.

Mr. SHEA.[1] We would review approximately a dozen a year.

Chairman ZABLOCKI. Of the dozen applicants, how many are approved and for what quantities?

Mr. SHEA. Just about, as I recall, all of the export applications for highly enriched uranium that we have processed have been approved.

I cannot remember any exceptions to those. Of course, when they come to us, they have had the recommendation of the executive branch and, a thorough review there.

We give it an additional review and have approved those, I believe, in all cases.

FOREIGN POLICY CONSIDERATIONS OF NUCLEAR EXPORTS

Chairman ZABLOCKI. Mr. Chairman, very briefly for the subcommittees, can you provide the current review requirements for exports of highly enriched uranium, and to what extent does a foreign policy consideration enter into the decision?

Mr. PALLADINO. Well, the items we consider are not much different from those that are listed in the proposed legislation, except we are permitted to use some subjective thinking in our own decisions.

Basically, before we approve the shipment of highly enriched uranium, we must make sure that it is going to a country that has

[1] James Shea, Director, Office of International Programs, WRC.

full scope safeguards, that they have a need for the material, that it is an appropriate end use, and that there are no alternatives that are currently available. When all of these are taken into account, including the nonproliferation attitude of the particular country, only then would we authorize the shipment or the license.

Chairman ZABLOCKI. Mr. Berman.

LICENSING PROCEDURE

Mr. BERMAN. Thank you, Mr. Chairman.

Under this bifurcated licensing procedure, you have jurisdiction for major nuclear commodities. No export can be made unless you approve a license, and that includes the enriched uranium and the heavy water, is that correct?

Mr. PALLADINO. Well, I don't think heavy water necessarily falls into the category, but all the reactor facility items would.

Mr. BERMAN. I gather——

Mr. PALLADINO. I am sorry. Heavy water is included if it is to be exported under a direct license. I was wrong in my earlier statement.

Mr. BERMAN. In other words, it is the retransfer of heavy water that is not included?

Mr. PALLADINO. That is right.

EXPORT OF HEAVY WATER

Mr. BERMAN. What is possibly the logic of a distinction which says for the export of heavy water to a particular country you review and must approve the license, but for the retransfer from a country that you have approved an export to, to another country, you have no statutory authority to approve or deny.

Mr. PALLADINO. Well, I guess speaking for myself, I don't see the logic. I would say that they ought to be treated in a similar way.

Mr. BERMAN. And it was in this area that you and apparently one other Commissioner that is not here today at least feel that the consultative process broke down.

Mr. ASSELSTINE. I think all of us feel that way, Mr. Berman.

Mr. PALLADINO. I think it was unanimous among the present Commissioners that the consultation on the heavy water transfer, the 143 tons transferred to Argentina, was not handled in accordance with the agreement we had with the Department of Energy on the consultation process.

Mr. BERMAN. What would have been—can you give sort of an informal off-the-cuff opinion about what your advice would have been had you been given adequate time to comment on this?

Mr. PALLADINO. Well, we had a number of licensing cases involving smaller amounts of heavy water on which we had not gotten the judgment of the Department of State, and we would have asked for some consistent basis for the thinking that led to the approval of the shipment and not the shipments of smaller amounts of heavy water. It is not clear to me how the Commission would have come down on the retransfer.

ARGENTINA'S NUCLEAR POLICY

I can possibly speak for myself. I am concerned about the proliferation problems with Argentina, and the retransfer covered a significant amount of heavy water, they would certainly cause me to consider it very carefully.

Mr. BERMAN. Do you think that is why you were not consulted?

Mr. PALLADINO. I am not sure, but the problem is that we have these smaller shipments that are awaiting licensing, and we are waiting for the Department of State input. We have not gotten it.

We don't know what their policy thinking is on them, and then all of a sudden comes a big amount that was not required to be licensed.

Mr. BERMAN. Because it was retransferred.

Mr. PALLADINO. It was a retransfer, and the Commission didn't have the opportunity to comment in the timeframe we would have liked to have had.

Mr. BERMAN. Without knowing very much about all this, could it be that the retransfer device was used in order to get around your licensing authority?

PROBLEM OF AGENCY COORDINATION ON LICENSING

Mr. PALLADINO. No, we didn't have licensing authority on the retransfer.

Mr. BERMAN. That is what I mean.

Mr. PALLADINO. The other agencies were not trying to get around anything except as might be implied by the short timeframe.

Mr. BERMAN. I guess what I meant was, could this deal have been put together using the device of retransfer in order to get around your licensing authority. Or was West Germany the only——

Mr. BERNTHAL. Mr. Berman, if I could just comment, it was my impression that it was more an oversight on the part of the other agencies rather than any specific intent. But the chairman may want to comment further on that.

Mr. PALLADINO. No, I don't think they were intending to circumvent the respective authorities because they were working within their sphere of authority. The only part that they did not exercise fully in my opinion was the consultative feature that was to go along with their authority.

Mr. BERMAN. But here you are holding up the issuance of licenses for smaller shipments of heavy water until you get a better sense from the State Department of certain considerations, and all of a sudden a much larger shipment of heavy water through a retransfer device occurs.

We could at least speculate that the people who were not particularly happy about your unwillingness at this point to issue the licenses on the smaller——

ROLE OF DEPARTMENT OF STATE

Mr. PALLADINO. I didn't say we were unwilling to license the smaller ones. We had not received the necessary information that we normally get—the analysis from the State Department.

One of the points on which we might speculate is that the Department of State was not giving us their analysis because they did not desire to go ahead with transfers that might involve countries with questionable proliferation credentials. So we did not push them on those licensing cases, but we were surprised to get the large retransfer case in such a big hurry.

However, I must point out the Department had been keeping us informed along the way. But it seemed to us that all of the cases were tied up in the same type of questions, and so we did not push any of our points. We were caught short when they decided to proceed hurriedly on the retransfer of the 143 tons.

Mr. BERMAN. From your testimony, I have a sense that you have some objections to the bills that are before us, but they seem to be objections that focus on rather narrow aspects of those bills—the vagueness of certain determination standards that you would be required to make, the aspect of legislation which deals with U.S. affiliates. What about the more fundamental premises of the legislation and, in the course of that, is in a sense backing exports to all countries who don't accept full scope safeguards, is that a subjective determination or is that a pretty ascertainable, readily ascertainable factor situation which a regulatory body could determine quite easily, and what do you think of that premise?

Mr. PALLADINO. Well, I think the Commission is in general concurrence with the objectives of the legislation.

NUCLEAR EXPERTS CONTINGENT ON FULL SCOPE SAFEGUARDS

Mr. BERMAN. Let me just understand that. Does that mean you generally accept the notion that nuclear exports should not go to countries that don't have full scope safeguards.

Mr. PALLADINO. I think generally that is what I mean. I think that is generally what the Commission means. However, we feel that the restrictions of the legislation have a number of practical problems, some of which I could go into if you would like.

In addition, we are not sure that the requirements set forth in the legislation are actually necessary, because I believe that what we are doing is consistent with the requirements. However, by codifying them, I think, we reduce the amount of flexibility we now have.

For example, saying that no heavy water would be sent to any nation that doesn't have full scope safeguards would give us difficulties because the legislation doesn't have some provisions for de minimis levels such as for exports of heavy water for medical uses or for research in agriculture and the like.

So, if this difficulty were clarified so that it did not preclude exports of de minimis levels, I think the situation would be improved.

In saying that——

DEFINITION OF DUAL-USE ITEMS

Mr. BERMAN. Are those items dual use items?

Mr. PALLADINO. What is that?

Mr. BERMAN. Are those kinds of de minimis exports dual use items? Do they have a potential for being used in the research or construction of nuclear weapons?

Mr. PALLADINO. I don't think so. I don't think that they are conducive to nuclear weapons activities.

Now, one cannot always say for sure that some piece of material would not be used in some research, but the amounts are generally so small that we don't see how they would be used in research for weapons.

Mr. BERMAN. Thank you, Mr. Chairman.

Mr. ASSELSTINE. Mr. Berman, I wonder if I could add just a couple of comments to what the chairman has said in response to your last question?

FULL-SCOPE SAFEGUARD REQUIREMENT

I think that as a practical matter we really have not taken a position, one way or the other on the question of whether a full-scope safeguard requirement should be extended substantially beyond the present requirements in the Nuclear Non-Proliferation Act. I think the kind of judgments that may be involved in that are the kind of policy judgments that we in the past have felt are more properly ones that you in Congress should address, as well as the State Department, and the executive branch, in terms of mapping out our overall nonproliferation policy, whether changes like that will advance or hinder our ability to improve cooperation by other countries, and encourage countries that have not done so to accept full scope safeguard.

So I don't want to mislead you on the standpoint that the Commission has taken a position one way or the other on that. I think we have not.

Our focus, and I think properly so, has been more on how we would carry out our licensing responsibilities—the kinds of determinations that we would have to make and whether the bills impose additional difficulties or uncertainties in making those kinds of judgments.

On your question about could we make the kind of a judgment whether or not a nation has accepted full scope safeguards as a condition for any nuclear exports, I think we can make that kind of a judgment.

We certainly make that kind of judgment now in terms of nuclear facilities and nuclear fuel exports under the Nuclear Non-Proliferation Act.

STATUS OF PROPOSED REGULATIONS

Mr. BERMAN. In these proposed regulations, I take it they are not in effect—have they been published?

Mr. ASSELSTINE. No, they have not.

Mr. BERMAN. So there is not an official comment period that has started yet? The one that says permitting the export under a general license, of reactor components to selected countries which support U.S. nonproliferation objectives, now that is not a license that is submitted to you, is it?

Mr. ASSELSTINE. If the Commission adopted those regulations, then the Commission would, in essence say there exists a general license and materials or equipment that are listed under that li-

cense can then be exported by a U.S. company without having to receive a specific license for that particular export.

It would be a general license granted for any of the material or equipment covered on the list to any of the specific countries that were eligible to receive that equipment.

Mr. BERMAN. I am sorry, Mr. Chairman, to take more time, but just to conclude on that, reactor components, I understood in the chairman's initial presentation that a certain level of reactor components are not licensed by you anyway. Is that right?

LICENSING OF REACTOR COMPONENTS

Mr. ASSELSTINE. That is correct. Certain kinds of equipment are not——

Mr. BERMAN. How do you end up giving a general license in an area that you don't have the authority to license in the first place?

Mr. PALLADINO. I think we may be mixing up two items, one having to do with reactors and one having to do with the licensing of other materials for which we are authorized to grant licenses.

Jim, maybe you could be helpful.

Mr. BERMAN. I am just reading what you stated here—permitting the export under a general license of reactor components to selected countries which support U.S. nonproliferation objectives.

Mr. SHEA. Perhaps I could clarify that.

The reference there is to components that are licensed by NRC.

Mr. BERMAN. All right. Support U.S. nonproliferation objectives, is that the same as utilizing and employing full scope safeguards or signing the nonproliferation treaty? Are those all synonymous terms?

Mr. ASSELSTINE. I think essentially that is the case, Mr. Berman. There may be one or two examples—the United Kingdom—one or two examples that don't fit precisely, but that is essentially the intent.

Mr. BERMAN. Thank you.

PROPOSED CHANGES IN EXPORT LICENSING

Chairman ZABLOCKI. Returning to the changes in export licensing regulations, what is the rationale for deleting coolant pumps and control rods from the list of components; subject to NRC licensing?

Mr. PALLADINO. I will try to describe it as I understand it. It is the staff position that primary coolant pumps are generally available throughout the world, and not necessarily limited to U.S. technology, and also that control rods fall in the same category.

The staff feeling was, under those circumstances, that it would be better to not limit them and to call them reactor components.

The Commission has not made a decision yet on whether it is going to go in that direction or not.

Chairman ZABLOCKI. On the face of it, it does seem that the administration on the one hand wants to strengthen international nuclear export controls, but on the other is becoming more liberal in some of its recommendations.

But, since the decision on controls has not yet been made, I would hope that you would keep in mind the administration's at-

tempt to seek a consensus to strengthen nuclear export controls worldwide.

Thank you, Mr. Palladino, and Mr. Asselstine, and Mr. Bernthal. I would ask if you would be willing to supply answers for some of the questions that were filed with the subcommittee by members not able to attend? Other witnesses have agreed, and I hope you will agree as well, Mr. Palladino.

Mr. PALLADINO. we will certainly be pleased to respond to any questions for the record.[1]

Chairman ZABLOCKI. Thank you.

I would like to ask, finally, that Commissioner Gilinsky's statement, be included in the record. He was unable to be here today.[2]

Mr. Palladino, Mr. Asselstine, Mr. Bernthal, thank you very much.

The subcommittees stand adjourned subject to call of the Chair.

[Whereupon, at 12:05 p.m., the subcommittees were adjourned, to reconvene at 10 a.m. on Tuesday, November 1.]

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[1] See questions and responses in app. 25.

[2] See statement in app. 21.

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PROPOSED AMENDMENTS TO THE NUCLEAR NON-PROLIFERATION ACT, 1983

TUESDAY, NOVEMBER 1, 1983

HOUSE OF REPRESENTATIVES, COMMITTEE ON FOREIGN AFFAIRS, SUBCOMMITTEES ON INTERNATIONAL SECURITY AND SCIENTIFIC AFFAIRS AND ON INTERNATIONAL ECONOMIC POLICY AND TRADE,

Washington, D.C.

The subcommittees met at 10:15 a.m., in room 2172, Rayburn House Office Building, Hon. Don Bonker (chairman of the Subcommittee on International Economic Policy and Trade) presiding.

Mr. BONKER. The subcommittees will come to order.

This morning we meet for the fourth in a series of joint hearings with Chairman Zablocki's subcommittee to review legislation to amend the Nuclear Non-Proliferation Act of 1978.

Pending before the subcommittees are two proposals, H.R. 1417, the Nuclear Non-Proliferation Policy Act of 1983, which is sponsored by the distinguished member of this subcommittee who is present this morning, Mr. Wolpe, and H.R. 3058, the Nuclear Explosives Control Act of 1983, which is sponsored by our colleague, Richard Ottinger of New York, who testified before the subcommittees last week.

This will conclude the series of hearings that we have conducted on the subject. It is doubtful that the subcommittees will have an opportunity to go into markup any time this year, but it will be pending before the subcommittees as we reconvene in 1984.

Today we have the opportunity to hear from two key spokespersons for the administration on nonproliferation issues—the Ambassador-at-Large, Richard Kennedy, and the Honorable Kenneth Adelman, who is the Director of the Arms Control and Disarmament Agency.

Both of the witnesses have prepared very thorough and thought-provoking statements. I hope that in the interest of time, and so we can allow for questions, that perhaps you can summarize your comments.

Chairman Zablocki, do you have any opening comments?

Chairman ZABLOCKI. Thank you, Mr. Chairman.

I join you in welcoming Ambassador Kennedy and Director Adelman to these hearings. Unfortunately, I have a conflict and will have to leave shortly for a meeting of the Task Force on Lebanon, the burning issue of the day.

Thank you very much.

Mr. BONKER. Thank you, Chairman Zablocki.

Mr. Kennedy, you may proceed, sir.

STATEMENT OF HON. RICHARD T. KENNEDY, AMBASSADOR-AT-LARGE, DEPARTMENT OF STATE

Ambassador KENNEDY. Thank you very much, Mr. Chairman.

Chairman Zablocki, Chairman Bonker, gentlemen, it is an honor to have this opportunity to appear before you and comment on the legislation that is before the subcommittees, and also to discuss a number of broad nonproliferation issues which you asked me to address in your letter to me.

I will be summarizing my statement here today, Mr. Chairman. I would appreciate it if my full statement could be included in the record.

Mr. BONKER. Without objection, your entire statement will be part of the official record.

Mr. KENNEDY. Thank you, sir.

ADMINISTRATION'S NONPROLIFERATION EFFORTS

The administration's nonproliferation efforts are conducted in accordance with the requirements of applicable law and under the guidelines provided by the President in his statement of July 16, 1981. In that statement, the President laid out a series of basic guidelines on which the specific efforts of the administration are based. Mr. Chairman, I would appreciate it if the President's statement and guidance could be included in the record.

Mr. BONKER. Without objection, so ordered.

Mr. KENNEDY. The administration efforts in line with the President's guidance are to put in place the most effective nonproliferation regime which we, in combination with other concerned nations, can achieve. To that end the administration has been pursuing a large number of nonproliferation initiatives. These include the following:

On the policy front:

PRESIDENT REAGAN'S INITIATIVE

President Reagan's initiative to have all nuclear suppliers adopt comprehensive safeguards as a condition of supply;

Strong support for universal adherence to the Nuclear Non-Proliferation Treaty with particular emphasis on increasing the number of parties before the 1985 NPT Review Conference;

Bilateral nonproliferation consultations with over a dozen countries, including bilateral meetings with the Soviet Union, over the past year; and

Ratification of the Convention on the Physical Protection of Nuclear Material.

On the safeguards and technology front:

Implementation of the U.S. voluntary offer to accept safeguards on U.S. civil nuclear facilities;

Assistance to nonnuclear weapon states in spent fuel storage and disposal;

Participation in the Hexapartite safeguards project to assist the IAEA in developing an effective safeguards approach for such technology; and

Strong support for a technical program at Argonne National Laboratory to develop low enriched fuels for research and test reactors, the so-called RERTR program, for the purpose of reducing trade flows in high enriched uranium.

And finally, on the export front:

A lead role in multilateral efforts to improve international guidelines for controlling sensitive nuclear exports;

A program of nuclear export alerts to other supplier governments, to make it more difficult for a sensitive country to acquire equipment which could assist an explosives program;

Revision of U.S. regulations to assure a much more thorough review of nuclear technology transfers; and

Consultations with some of the emerging nuclear supplier nations to alert them of the need for effective controls on their nuclear trade.

With the chairman's permission, I would like to submit for inclusion with my statement a detailed summary of these various nonproliferation initiatives which the administration has pursued over the past year.

Mr. BONKER. Hearing no objection, so ordered.

ADMINISTRATION'S POSITION ON THE PENDING LEGISLATION

Mr. KENNEDY. Mr. Chairman, I would like to turn now to a discussion of some of the administration's basic concerns about the nuclear legislation you have pending before you, H.R. 1417 and H.R. 3058.

The administration strongly opposes both H.R. 1417 and H.R. 3058 in their entirety as we believe that both bills would clearly impede rather than aid our nonproliferation efforts.

In 1981 the administration undertook a preliminary review of U.S. laws, regulations, and procedures in the nonproliferation area to determine whether changes should be sought. A number of possible areas for modification in the law were identified. But it was concluded that a contentious debate, which might ensue were the changes pursued at the time, would injure our ability to achieve our overall nonproliferation objectives. Thus, the administration decided not to propose changes to the law.

Since the NNPA's enactment, foreign governments have come to a better understanding of the mandated procedures, and the functioning of the system has gradually increased in efficiency. It remains the administration's view that changes in the law at this time could be seriously disruptive.

The modifications to the Atomic Energy Act and the Nuclear Non-Proliferation Act embodied in the bills before the committee would seriously undercut our efforts to restore the position of the United States as a predictable and stable nuclear trade partner, and to convince foreign countries that they may deal with the United States confident that the rules will not be changed arbitrarily and unilaterally. Further changes at this time would create a high degree of uncertainty both at home and abroad about the future content and direction of U.S. nonproliferation law, policy and procedures.

This uncertainty could so undermine the U.S. role in international nuclear affairs that our ability to achieve our nonproliferation objectives would be seriously diminished. It would also hinder our efforts to reforge cooperative ties with the other major nuclear suppliers and to strengthen rules of nuclear commerce.

We are particularly concerned about any attempt to impose retroactive requirements on transactions which have already been concluded. Such a move seriously erodes the confidence of our allies and trading partners and eliminates any possibility that new and important nonproliferation initiatives can be pursued successfully.

Mr. Chairman, there are also serious problems with many specific aspects of these bills. The administration's detailed views on the proposed legislation are set forth in my written testimony for the record. The administration's views are also included in the letters to committee Chairman Zablocki of July 14 and September 14, 1983, and I would appreciate these letters being included in the record.

Mr. BONKER. You are certainly filling up our record, Ambassador.

Hearing no objection, the documents will also be included.[1]

Mr. KENNEDY. Mr. Chairman, you asked me to comment on a number of nonproliferation issues of particular interest to the subcommittees, and with your permission I will turn to those now.

STATUS OF NUCLEAR COOPERATIVE AGREEMENTS

I have quite a lot to report regarding administration efforts to negotiate new or amended agreements for cooperation under section 123 of the Atomic Energy Act of 1954. We have renegotiated our agreements with the IAEA, Canada, Australia, and Colombia. We anticipate that revised agreements with Norway and Sweden will be submitted to the Congress soon. We have also concluded new agreements for cooperation with several other nations: Morocco, Bangladesh, Peru, Indonesia, and Egypt.

Regarding the Euratom and Japan negotiations on plutonium use, the United States has offered Japan and the countries of EURATOM new, long-term arrangements for implementation of U.S. consent rights over the reprocessing and use of materials subject to our agreements for peaceful nuclear cooperation, which would be revised in accordance with the terms of the NNPA. This advance, long-term approval would apply only to facilities and activities which we determine meet our strict statutory criteria.

Our willingness to take these steps presumed a continuing strong commitment of these countries to our common nonproliferation efforts and to developing and implementing the most effective possible controls over plutonium.

We have provided detailed proposals on this subject to the Government of Japan, and in the last year have had eight negotiating sessions with the Japanese, in Washington, Tokyo, and Vienna, in an effort to reach agreement both on the long-term arrangement

[1] See apps. 15 and 16.

for plutonium use and on revision of the peaceful nuclear cooperation agreement.

I can report to you that we have made significant progress in a number of areas, but that there are important matters that remain to be resolved as well. I will keep the Congress briefed on significant developments.

Negotiations with Euratom are complex by their nature, given the institutional arrangements that apply within the European community, and the need for the EC Commission to consult with member states. I can report that we provided the community with details of our new proposals last spring. In September we received a number of detailed questions concerning our proposals, and last month we met with EC officials to clarify our proposals and to agree on how to proceed. Given the inherent complexity of such negotiations, I came away from the recent meetings in Brussels with considerable optimism.

ROLE OF SECURITY ASSISTANCE IN REDUCING PROLIFERATION

An important element of U.S. nonproliferation policy is the effort to affect the motivations of potential proliferator nations as well as their capabilities. By helping friendly nations to address legitimate security concerns, we seek to reduce incentives for the acquisition of nuclear weapons. The provision of security assistance and the sale of military equipment can be a major component of efforts along these lines. Development of security ties to the United States can strengthen a country's confidence in its ability to defend itself without nuclear weapons. At the same time, the existence of such a relationship strengthens the case when we seek to persuade that country to forgo nuclear arms.

PAKISTAN

In Pakistan, we have sought to restore a strong security relationship with the United States, in the wake of the Soviet invasion of Afghanistan. We believe that strengthening Pakistan's conventional military capability serves a number of important U.S. interests, including nonproliferation. As our relationship develops, we will continue to impress on the Pakistanis the great importance we attach to avoiding further proliferation. At the same time we have made clear to the Government of Pakistan that efforts to acquire nuclear explosives would jeopardize our security assistance program and the whole relationship.

ADMINISTRATION'S NUCLEAR EXPORT POLICY

Next, Mr. Chairman, you asked me to address the effectiveness as a nonproliferation tool of U.S. willingness to engage in limited nuclear commerce with non-NPT countries.

In looking at the administration's nuclear export policy, it is important to understand two points.

DISAPPROVAL OF NUCLEAR EXPORTS

First, we have not and will not approve any nuclear-related exports which could assist a nonweapons state to develop nuclear ex-

plosives. The NNPA contains stringent nonproliferation conditions for significant nuclear assistance to other countries, and this administration continues to apply those requirements rigorously. Our policy of permitting the transfer of a limited number of nonsensitive items or services to nonweapons states which do accept comprehensive safeguards is fully consistent with both the letter and spirit of the law.

Second, our willingness to consider such limited exports—within the scope of the applicable statute—proceeds in part from the clear evidence that the overly restrictive policy implemented in the past was simply not achieving meaningful nonproliferation results.

DIALOG WITH NON-NPT STATES

Mr. Chairman, the administration believes that our efforts at reopening a dialog with non-NPT states have achieved substantial gains.

Limited nuclear cooperation has created a much improved climate in our nuclear relations with several important nations. This improved atmosphere is an essential precondition for the kinds of negotiations and discussions which can eventually produce significant nonproliferation results.

BRAZIL

For example, we have recently had two rounds of very positive discussions with the Government of Brazil after a very long hiatus in those discussions. In those discussions, we have been able to detail the benefits Brazil could expect from the broader nuclear cooperation which would be possible if that country accepted safeguards over its entire fuel cycle.

This better climate has also permitted us to get a reasonably positive hearing on several specific, important nonproliferation issues with a number of relevant nations with which we had little or no dialog on such issues for some time. Among these countries are some which, for example, are rapidly moving toward an ability to become nuclear suppliers in their own right. If they fail to apply reasonable export requirements—for example, by insisting that the importing state apply IAEA safeguards—the entire nonproliferation system could be undermined.

FUTURE ROLE OF NUCLEAR EXPORTERS

We have had positive reactions from some of the non-NPT nations we have approached on this critical issue regarding their future role as nuclear exporters. We have been able to describe in detail some specific measures they might adopt to assure that their nuclear cooperation with other nations does not increase the risk of nuclear explosives development. The ability to permit modest levels of nonsensitive nuclear cooperation helps to generate the positive atmosphere without which it would be very difficult to obtain regular access to key persons we need to contact concerning this important issue.

Whether the United States maintains bilateral nuclear relations with nations of proliferation concern or not, they are all partici-

pants in multilateral organizations and meetings which deal with nuclear matters. Therefore, we have an interest in securing the cooperation of these countries on issues which arise in these international fora.

IAEA

A specific example is the International Atomic Energy Agency, where we have recently been confronted by disruptive attempts to turn the agency away from its primary technical and safeguards goals toward divisive political debate. At recent meetings of the Board of Governors and General Conference, the politicizing tendencies which had been reducing the utility of the IAEA appear to have been reversed. Our more cooperative relations with several key non-NPT nations have enabled us to detail the damaging effects of politicizing the IAEA, and in turn, we have had much greater cooperation in dealing with these issues.

CONTROLS OVER DUAL-USE EXPORTS

You have also asked that I address current efforts by the executive branch to develop meaningful controls over nuclear-related, dual-use exports.

The categories of commodities are controlled by the United States for nonproliferation purposes. The first relates to the nuclear fuel cycle. Restraint of exports related to it is intended to deny potential proliferators access to the fissile material needed to construct a nuclear explosive device.

The second category pertains to items which may be used in the design, fabrication, and testing of the explosive device itself. Examples of such items include sophisticated computers and diagnostic equipment, very precise machine tools, or special materials like high purity calcium.

Because most of these items may be used for industrial activities not related to the development of nuclear explosive devices, they fall within the category of dual-use items. These exports pose very difficult export control issues because of their broad applicability to routine industrial activities which have no proliferation significance, because they are often widely available from alternate suppliers, and because their usefulness to a proliferator may depend on the particular technical and industrial infrastructure of that nation, as distinguished from the capabilities of other nations of concern.

WAYS OF ADDRESSING DUAL-USE PROBLEM

We have attempted to address the dual-use problem in several ways. An essential activity in this regard is furnishing other governments with up-to-date information concerning exports of concern. We do this on an individual basis and in consultations on broader questions.

The individual approach is used when information comes to our attention concerning a single transaction which may raise proliferation concerns regarding a proposed dual-use export. If our U.S. export control process identifies an application for an item destined

for an end-use or end-user we find questionable from a nuclear explosives perspective, we would, of course, deny a license to export that item. At the same time we attempt to identify possible alternate suppliers and to advise them that we have denied an export and to urge them to take similar action if a similar export request is made to their own suppliers.

The second approach which we have used during the past 2 years has been to make broadly based presentations concerning the dual-use problem by a team of U.S. export control officials to other supplier governments in a series of discussions in foreign capitals. This approach has enabled us to provide a substantial amount of technical and policy information to the foreign officials who must implement their own export controls. We have received positive reactions and useful comments from other governments on these dual-use export consultations, and expect to continue them in the future.

Some of the specific problems in dealing with this extremely complex field of export control were analyzed in a report by the General Accounting Office issued September 1 of this year. The most significant finding in the report is the following sentence, which begins chapter 5 on foreign availability, and I quote:

COOPERATION ON DUAL-USE ITEMS

"The effectiveness of U.S. export controls for dual-use, nuclear-related items depends on the degree of cooperation the United States receives from other supplier countries."

The crucial term here is "cooperation." That can only be achieved through sharing of information, taking into account the views of others, and attempting to resolve differences through negotiation and compromise, not through unilateral measures. A significiant aspect of the report is the decision of its authors not to urge any specific recommendations for changes in the system on agencies which are currently attempting to deal with this difficult problem.

While we recognize there are weaknesses in our system, and that improvements can and must be made, I think that if you will examine the GAO's report carefully, you will be convinced the U.S. export control agencies are diligently working to address this very complex technical, legal and national security issue. There are no quick fixes for this problem, legislative or otherwise. Rather, this field requires the exercise of informed expert judgment on a multitude of individual cases on a day-by-day basis.

IAEA

Since I last testified before the committee, a great deal has occurred in the International Atomic Energy Agency, IAEA. As you are aware, we left the General Conference in 1982 in protest against the illegal rejection of the credentials of the Israeli delegation. Since then, we have been pleased that our message to the IAEA membership seems to have been heard and heeded. Our extensive consultations with many members demonstrated that the great majority agreed with us on the need to reduce politicization in the IAEA. Significantly, the February, June, and October meet-

ings of the IAEA Board of Governors were businesslike and devoid of excess rhetoric or divisive dispute.

The recently concluded General Conference, while not totally free from problems, marked a significant step in our efforts to reverse the tide of politicization in the agency. Two resolutions which the United States vigorously opposed did pass. These included an Iraqi resolution on Israel's alleged threat to repeat attacks on Arab nuclear facilities and a resolution condemning South Africa. The Iraqi resolution did not affect Israel's right of participation in the agency and, in fact, an attempt by Iran to challenge Israel's credentials was defeated by a substantial majority.

The resolution on South Africa called on the Board of Governors at the IAEA to consider excluding that country from technical working groups but did not call for suspension. While not without difficulty, overall, this year's General Conference was a far more businesslike, temperate meeting than last year's, reflecting strenuous U.S. efforts to depoliticize the agency. We will continue these efforts in the future.

This concludes my formal statement, Mr. Chairman. Thank you for your patience.

Mr. BONKER. Thank you, Mr. Kennedy, for a comprehensive presentation.

[Ambassador Kennedy's prepared statement follows:]

PREPARED STATEMENT OF HON. RICHARD T. KENNEDY, AMBASSADOR-AT-LARGE, DEPARTMENT OF STATE

Mr. Chairman, members of the subcommittees: I appreciate the opportunity to comment on the proposed legislation before your subcommittees and also on certain broad non-proliferation issues which you have asked me to address.

The administration's nonproliferation efforts are conducted in accordance with the requirements of applicable law and under the guidelines provided by the President in his statement of July 16, 1981. In that statement, the President laid out a series of basic guidelines on which the specific efforts of the administration are based. Mr. Chairman, I would appreciate it if the President's statement and guidance could be included in the record. The administration efforts in line with the President's guidance are to put in place the most effective nonproliferation regime which we, in combination with other concerned nations, can achieve.

To that end, the administration has been pursuing a large number of non-proliferation initiatives. These include the following:

On the policy front:

President Reagan's initiative to have all nuclear suppliers adopt comprehensive safeguards as a condition of supply;

Strong support for universal adherence to the Nuclear Non-Proliferation Treaty with particular emphasis on increasing the number of parties before the 1985 NPT Review Conference;

Bilateral nonproliferation consultations with over a dozen countries (including bilateral meetings with the Soviet Union) over the past year; and

Ratification of the Convention on the Physical Protection of Nuclear Material.

On the safeguards and technology front:

Implementation of the U.S. voluntary offer to accept safeguards on U.S. civil nuclear facilities;

Assistance to nonnuclear weapon states in spent fuel storage and disposal;

Participation in the Hexapartite Safeguards Project to assist the IAEA in developing an effective safeguards approach for such technology; and

Strong support for a technical program at Argonne National Laboratory to develop low-enriched fuels for research and test reactors—the so-called RERTR program—for the purpose of reducing trade flows in high-enriched uranium.

And, finally, on the export front:

A lead role in multilateral efforts to improve international guidelines for controlling sensitive nuclear exports;

A program of nuclear export alerts to other supplier governments, to make it more difficult for a sensitive country to acquire equipment which could assist an explosives program;

Revision of U.S. regulations to assure a much more thorough review of nuclear technology transfers; and

Consultations with some of the emerging nuclear supplier nations to alert them of the need for effective controls on their nuclear trade.

With Chairman's permission, I would like to submit for inclusion with my statement a detailed summary of these various no-proliferation initiatives which the administration has pursued over the past year.

COMMENTS ON PENDING BILLS

Mr. Chairman, I would like to turn now to a discussion of some of the Administration's basic concerns about the nuclear legislation you have pending before you and then address the specific provisions of H.R. 1417 and H.R. 3058.

In 1981 the administration undertook a preliminary review of U.S. laws, regulations and procedures in the nonproliferation area to determine whether changes should be sought. a number of possible areas for modification in the law were identified. But it was concluded that a contentious debate, which might ensure were the changes pursued at the time, would injure our ability to achieve our overall nonproliferation objectives. Thus, the administration decided not to propose changes to the law.

Since the NNPA's enactment, foreign governments have come to a better understanding of the mandated procedures and the functioning of the system has gradually increased in efficiency. It remains the Administration's view that changes in the law at this time would be seriously disruptive and would impede rather than aid our non-proliferation efforts.

The modifications to the Atomic Energy Act and the Nuclear Non-Proliferation Act embodied in the bills before the Committee would seriously undercut our efforts to restore the position of the United States as a predictable and stable nuclear trade partner, and to convince foreign countries that they may deal with the United States confident that the rules will not be changed arbitrarily and unilaterally. Further changes at this time would create a high degree of uncertainty both at home and abroad about the future content and direction of U.S. non-proliferation law, policy and procedures.

This uncertainty could so undermine the U.S. role in international nuclear affairs that our ability to achieve our non-proliferation objectives would be seriously diminished. It would also hinder our efforts to reforge cooperative ties with the other major nuclear suppliers and to strengthen rules of nuclear commerce.

We are particularly concerned about any attempt to impose retroactive requirements on transactions which have already been conlcuded. Such a move seriously erodes the confidence of our allies and trading partners and eliminates any possibility that new and important non-proliferation initiatives can be pursued successfully.

Now let me address some specific aspects of the bills now under consideration in the House. The administration's views on the proposed legislation are set forth in the letters to full committee Chairman Zablocki of July 14 and September 14, 1983 and I request that these letters be inserted in the record.

COMMENTS ON H.R. 1417

Title I of H.R. 1417 would amend the procedures that currently apply to technology exports under section 57b of the Atomic Energy Act. We recognize the concern reflected here over blanket authorizations which might involve countries of proliferation concern. It was with this concern in mind that the Departments of State and Energy have revised part 810 of title 10 of the Code of Federal Regulations. The revision extends the requirements for specific review and authorization for direct or indirect activities involving production of special nuclear material by U.S. persons beyond the countries previously listed, which were essentially Eastern bloc countries. Now such specific authorization is also required for countries that do not accept full-scope safeguards as well as for certain countries in regions of particular volatility and sensitivity.

H.R. 1417 would require application of the current export licensing criteria for facilities and nuclear fuel to the export of any nuclear technology exports. Such an approach is misdirected. Exports of information should not be restricted in the same fashion as we restrict exports of fuel and equipment.

Even when dealing with reactor equipment, different controls are applied to each of the three different classes of nuclear components regulated by statute. Each class

of components has a different level of proliferation significance, and hence a different level of control.

H.R. 1417 lumps together the technology for all these components and would apply the most stringent controls even to relatively insignificant technology. A more productive approach is to review cases where there may be a specific non-proliferation concern, under a specific authorization framework—and to decide on a case-by-case basis what requirements should be attached to the technology transfer.

H.R. 1417 would further require that technology export or retransfer authorizations related to sensitive nuclear technology be subject to specific authorization requirements. This is unnecessary. It is already the case under 10 CFR Part 810. Moreover, the requirements of sections 123, 127 and 128 of the Atomic Energy Act and those in the Nuclear Suppliers Guidelines already apply to any exports of sensitive nuclear technology. The H.R. 1417 provision would duplicate these provisions.

H.R. 1417 also would impose specific controls on the export of highly enriched uranium [HEU]. As you know, the administration's policy, reflected in the President's July 16, 1981, non-proliferation statement, encourages the use of low enriched fuels where feasible. This policy is reflected in procedures under which the executive branch prepares an analysis of the technical and economic justification for the use of HEU prior to recommending approval of any license for its export. In addition, the Reduced Enrichment for Research and Test Reactors [RERTR] program, which involves development of low enriched fuels and which has received considerable support from foreign countries, promises in the future to reduce significantly the need for exports of HEU. Thus, the substantive concerns of the bill in this regard are already being fully addressed.

Moreover, not only are the provisions in H.R. 1417 applicable to HEU unnecessary but they would also present a number of serious problems. These provisions would require the NRC to determine, before authorizing export of such material, that there is no alternative fuel, that the proposed recipient has provided assurances that, when an alternative fuel is available, it will be used, and that the Executive Branch is taking the necessary steps to develop an alternative fuel. The requirement for these findings would compel the U.S. Government to second guess the judgments of foreign nations on their own ability to take the technical, regulatory and licensing steps necessary to convert their facilities from HEU fuels, and on the desirability of doing so. This problem would be compounded by an element of discrimination, because United States reactors would operate under no parallel limitations.

H.R. 1417 would also require that the NRC, in concultation with the Secretary of State, determine an overall in-country kilogram limit on the amount of HEU of U.S. origin that would be allowed in each foreign country and at each reactor site at any given time. This would impose on the agencies of the U.S. Government an unworkable administrative burden with respect to foreign stocks of HEU. Moreover, its intrusive nature would be both resented by and unacceptable to the nations at which it was directed.

These provisions could well result in sharply reduced willingness on the part of foreign governments to cooperate in the RERTR program and to apply its results. Research in this area has not yet fully examined the properties and behaviors of alternate fuels, and a number of technical questions require resolution before it can be stated authoritatively that all legitimate reactor needs can be met with alternate reactor fuels.

H.R. 1417 also would require that the Nuclear Regulatory Commission both oversee and pass judgment on the adequacy of Executive Branch programs to develop alternate reactor fuels. Providing the NRC with such a role would distort the relationship between the Commission—a health and safety regulatory authority—and the Executive Branch.

H.R. 1417 would provide for expanded Congressional review, and a legislative veto, of subsequent arrangements involving reprocessing abroad either in-country or in a third country, or subsequent retransfer of more than 500 grams of plutonium resulting from reprocessing. We do not believe that the provisions for lengthier congressional review are necessary. The Atomic Energy Act already provides for a review period of 15 days of continuous session. This period is sufficient to permit Congress to initiate hearings on cases of particular interest. Moreover, in cases of special sensitivity, the executive branch has been cooperative in delaying entry into force of subsequent arrangements. To create a general rule, however, that lengthens the processing and administrative time for subsequent arrangements would create a further and unnecessary procedural impediment that foreign nations would face in dealing with the United States as a nuclear supplies. It would be perceived as a further indication of instability in our efforts to carry out peaceful nuclear cooperation.

In short, it would further damage the efforts to establish a sound, effective nonproliferation regime.

H.R. 1417 also contains provisions which would require that the Secretary of Defense make certain formal findings paralleling those made by the Secretaries of State and Energy in processing agreements for cooperation, nuclear exports, and subsequent arrangements. The administration opposes this provision. The Department of Defense already participates in inter-agency procedures developed to implement the NNPA, and has ample opportunity to make its views known in that process with respect to export license applications and subsequent arrangements. These existing procedures also establish a mechanism for disagreements to be raised and resolved. The Department of Defense participates in the formulation of major policy decisions with regard to agreements for cooperation. Thus, the DOD is fully involved in our non-proliferation decision-making, and the administration believes that it is undesirable and unnecessary to establish by statute a formalized, rigid requirement for DOD findings and participation.

Finally, H.R. 1417 contains a number of provisions which would purport to authorize both Houses of Congress to adopt concurrent resolutions binding the Executive Branch in matters concerning the execution of the Atomic Energy Act. In its recent ruling in *Immigration and Naturalization Service* v. *Chadha*, the Supreme Court made clear that when Congress exercises its legislative power, it must act in conformity with the requirements of Art. I, § 1 and 7 of the Constitution: passage by a majority of both Houses and presentment to the President for approval or veto. We believe that Congress already has ample legislative and oversight authority to provide direction to U.S. policymakers in the nonproliferation area and that the provisions in H.R. 1417 calling for congressional approval by concurrent resolution are unconstitutional and should be deleted.

COMMENTS ON H.R. 3058

The Administration shares the concerns of the authors of H.R. 3058 regarding the threat posed by the unchecked proliferation of enrichment and reprocessing technologies. However, we do not agree with the sweeping and categorical findings in H.R. 3058 that group together some of our closest and most reliable allies with others of genuine proliferation concern.

In matters of non-proliferation, as in every other aspect of foreign policy, distinctions must be made among various countries of the world. President Reagan has stated that the United States will not inhibit civil reporcessing and breeder development in countries with advanced nuclear programs where there is no proliferation risk. This policy recognizes that countries such as Japan and the members of EURATOM have decided to pursue advanced fuel cycle activities to enhance their energy security. But it does not encourage reprocessing or advanced fuel cycle activities where there is a proliferation concern. We recognize that plutonium and highly enriched uranium are dangerous materials, the use of which must be carefully controlled and safeguarded. For this reason, we are taking steps to improve the technical effectiveness of safeguards for enrichment and reprocessing facilities.

Turning to the specific provisions, H.R. 3058 would prohibit the export of major critical components of any facility for, and information or assistance relevant to, enrichment, reprocessing or heavy water production. This would result in a total ban on any exports of material, equipment or information for or any assistance to any facility for enrichment, reprocessing, or heavy water production. Such an across-the-board ban is not appropriate.

Such exports are already subject to strict regulation under sections 57b, 123a(9), and 127(6) of the Atomic Energy Act, section 402(b) of the Nuclear Non-Proliferation Act, and under regulations in 10 CFR Part 810 and 15 CFR section 378.3, as well as under the pertinent provisions in the Nuclear Suppliers Group Guidelines (INFCIRC/254). These controls, coupled with the policy set forth by President Reagan, already provide an appropriate level of constraint and fully support United States nonproliferation objectives.

We must recognize that sensitive nuclear facilities will exist. Where there is an advanced nuclear program and no proliferation risk, as in EURATOM and Japan, and if all the applicable requirements in law and the Suppliers Guidelines are met, we should not foreclose U.S. participation in the construction, design and maintenance of any such facilities in the future. Such participating could enhance our ability to shape the structure of the enterprise, including its safeguards, and to achieve increased governmental cooperation from our allies in Japan and EURATOM in dealing with real proliferation problems.

H.R. 3058 also would sharply limit approvals of subsequent arrangements for reprocessing, or use or retransfer of plutonium resulting from reprocessing, of U.S.-origin special nuclear material or special nuclear material produced through the use of U.S.-origin material, equipment or sensitive nuclear technology. Approval would be permitted only when all of the following requirements are met:

When it is for use in research, development or demonstration purposes for reprocessing;

When it is for use in a nuclear weapons state or one accepting full-scope safeguards;

When it is for use in a facility in operation or under construction when the bill was enacted;

If no other stock of plutonium is available; and if adequate physical security measures are maintained.

The restrictions would be lifted only upon a finding by congressional joint resolution that effective international safeguards would be applied to reprocessing and to separated plutonium and that effective international sanctions for violations of nonproliferation commitments have been established. Presumably, this provision is based on a policy judgment that use of plutonium, particularly commercial use, is inherently and in all cases highly undesirable. While the use of plutonium should be and is closely regulated and monitored, this judgment is neither appropriate nor realistic, given that many of our cooperating partners have concluded that it is desirable and economic to use plutonium in their civil programs. It is our view that plutonium reprocessing and use are adequately controlled under the very rigorous provisions of existing statutes, and that a change in this area is not only unnecessary, but would be harmful to our nonproliferation efforts. It would severely damage our nuclear relationships with our close allies in western Europe and Japan and could cripple our ability to work with them to strengthen the nonproliferation regime.

H.R. 3058, like H.R. 1417, would impose the same counterproductive restrictions on the already carefully controlled export of U.S.-origin HEU. As I stated with respect to the HEU provisions of H.R. 1417, the administration's Reduced Enrichment for Research and Test Reactors Program already addresses the substantive concerns of these HEU provisions.

H.R. 3058 would forbid approval of any subsequent arrangement for reprocessing or retransfer for reprocessing of special nuclear material or for retransfer of plutonium resulting from reprocessing, unless the requesting country or countries agreed not to substitute or exchange without U.S. approval material not subject to the NNPA for material subject to the NNPA, and to accept the same controls on the substituted material as on the original material. Substitution represents a reasonable and appropriate balancing of the need to maintain controls over exported materials and the economies which can often be achieved by using material already at a particular location. Substitution can also reduce the number and volume of physical transfers of nuclear material and thus limit the risk of loss and the health, safety and environmental risk which flow from transporting such substances. For example, if the material subject to U.S. control were in France, and France wished to substitute other uncontrolled material of comparable quality—for any of the foregoing reasons—we believe this should continue to be permitted. This causes no nonproliferation concern, and we see no need for a U.S. prior approval right. To the extent substitution may result in any diminution of nonproliferation controls, these situations can be dealt with far more effectively on a case-by-case basis rather than by imposing a range of U.S. controls on new quantities of material in every case. Where a particular substitution would pose nonproliferation concerns, the Executive Branch is able to respond to such problems within the scope of existing authority to disapprove particular transfers.

H.R. 3058 would permit authorizations under section 57(b) of the Atomic Energy Act only if an agreement for cooperation with the country in question were in effect, and if all the criteria in sections 127 and 128 had been met. H.R. 3058 would impose similar requirements on exports of items on the Nuclear Referral List and components, respectively. There is no convincing nonproliferation justification for imposition of such sweeping controls. These proposals would discard the legal framework of the NNPA and Atomic Energy Act, which was carefully tailored to provide varied levels of control for each type of item or activity based on its proliferation sensitivity, and would establish instead a new regime of the utmost rigidity. Further, U.S. companies would be eliminated from many areas of commerce, to the advantage of foreign suppliers. This would include a broad range of dual-use items, such as many types of computers and advanced machine tools. With respect to technology exports, the Department of Energy has recently brought into force revi-

sions in 10 CFR Part 810 which allow it to review on a case-by-case basis any proposed export of nuclear technology to non-nuclear weapon states that do not accept comprehensive safeguards.

H.R. 3058 contains the identical provisions as H.R. 1417 regarding new, formal findings to be made by the Secretary of Defense and the Administration opposes these provisions for the reasons already stated.

H.R. 3058 would extend the controls of the NNPA on exports to all persons subject to U.S. jurisdiction, including in particular foreign affiliates of U.S. corporations. Although the United States clearly has the legal authority to extend such controls, this proposal raises extremely complex and controversial issues, including the extraterritoriality concept which has caused great political difficulties recently between the United States and other nations. We believe an attempt to extend controls in this manner would generate enormous resentment on the part of the foreign countries whose cooperation in non-proliferation is most critical to a successful and effective non-proliferation regime, and would undermine rather than support U.S. non-proliferation goals. The administration accordingly strongly opposes this provision.

Finally, H.R. 3058 would extend section 129 of the AEA to Commerce-licensed nuclear items and DOE Part 810 authorizations, and would permit Presidential waiver only with congressional approval by concurrent resolution. We question the need or desirability of extending section 129 sanctions. Moreover, this and several other provisions in H.R. 3058 also clearly constitute an unconstitutional attempt to exercise legislative power in violation of the Supreme Court's recent ruling in *Immigration and Naturalization Service* v. *Chadha* and we oppose them for the reasons I have stated above.

In sum, the administration strongly opposes H.R. 1417 and H.R. 3058 in their entirety. They would undermine the position and influence of the United States in international nuclear affairs and thereby seriously damage our non-proliferation efforts.

NEW OR AMENDED AGREEMENTS FOR COOPERATION

Mr. Chairman, you asked me to comment on a number of nonproliferation issues of particular interest to the Subcommittees, and with your permission I will turn to those now.

I have quite a lot to report regarding Administration efforts to negotiate new or amended Agreements for Cooperation under section 123 of the Atomic Energy Act of 1954. We have renegotiated our agreement with the IAEA (entered into force May 6, 1980), with Canada (entered into force July 9, 1980), with Australia (entered into force January 16, 1981), and Colombia (entered into force September 7, 1983). We anticipate that revised agreements with Norway and Sweden will be submitted to the Congress soon. We have also concluded new agreements for cooperation with several nations: Morocco (entered into force May 16, 1981), Bangladesh (entered into force June 12, 1982), Peru (entered into force April 15, 1982), Indonesia (entered into force December 30, 1981), and Egypt (entered into force December 29, 1981).

Regarding the EURATOM and Japan negotiations on plutonium use, the President decided in June 1982 on a new approach. This approach gives our close allies in EURATOM and Japan a firmer and more predictable basis upon which to plan their vital energy programs, while at the same time furthering our non-proliferation objectives, including strengthened controls over civil plutonium.

The United States has offered Japan and the countries of EURATOM new, long-term arrangements for implementation of U.S. consent rights over the reprocessing and use of materials subject to our agreements for peaceful nuclear cooperation. This advance, long-term approval would apply only to facilities and activities which we determine meet our strict statutory criteria. The U.S. would be prepared to state its intention to consent to other facilities and activities in these programs when we have sufficient information about them to make the necessary determinations under our law. These offers were made in the context of seeking new or amended peaceful nuclear cooperation agreements with Japan and EURATOM in accordance with the Nuclear Non-Proliferation Act [NNPA]. Thus, these amended agreements would incorporate the new provisions contemplated in that act and the approvals would be valid only as long as the conditions provided in the agreement, including non-proliferation and statutory conditions, continued to be met. Our willingness to take these steps presumed a continuing strong commitment of these countries to our common nonproliferation efforts and to developing and implementing the most effective possible controls over plutonium.

We have provided detailed proposals on this subject to the Government of Japan, and in the last year have had eight negotiating sessions with the Japanese, in Washington, Tokyo, and Vienna, in an effort to reach agreement both on the long-term arrangement for plutonium use and on the peaceful nuclear cooperation agreement. I can report to you that we have made significant progress in a number of areas, but that there are important matters that remain to be resolved as well. As the substance of these issues is under negotiation between the two governments, I cannot go into the details in open session. I can say, however, that both sides continue serious and intensive efforts to find solutions and approaches that will permit them to reach agreement at an early date. I will keep the Congress briefed on significant developments.

Negotiations with EURATOM are complex by their nature, given the institutional arrangements that apply with the European Community, and the need for the EC Commission to consult with Member States. I can report that we provided the Community with details of our new proposals last spring. In September we received a number of detailed questions concerning our proposals, and last month we met with EC officials to clarify our proposals and to agree on how to proceed. Given the inherent complexity of such negotiations, I came away from the recent meetings in Brussels with considerable optimism.

ADDRESSING SECURITY CONCERNS

You also have asked me to address the issue of conventional arms transfers to deter nuclear weapons development. An important element of U.S. nonproliferation policy is the effort to affect the motivations of potential proliferator nations as well as their capabilities. By helping friendly nations to address legitimate security concerns, we seek to reduce incentives for the acquisition of nuclear weapons. The provision of security assistance and the sale of military equipment can be major components of efforts along these lines. Development of security ties to the U.S. can strengthen a country's confidence in its ability to defend itself without nuclear weapons. At the same time, the existence of such a relationship enhances our credibility when we seek to persuade that country to forego nuclear arms.

In Pakistan, we have sought to restore a strong security relationship with the United States, in the wake of the Soviet invasion of Afghanistan. We believe that strengthening Pakistan's conventional military capability serves a number of important U.S. interests, including non-proliferation. As our relationship develops, we will continue to impress on the Pakistanis the great importance we attach to avoiding further proliferation. At the same time, we have made clear to the government of Pakistan that efforts to acquire nuclear explosives would jeopardize our security assistance program.

DEVELOPING A DIALOG WITH NON-NPT COUNTRIES

Next, Mr. Chairman, you asked me to address the effectiveness as a non-proliferation tool of U.S. willingness to engage in limited nuclear commerce with non-NPT countries.

In looking at the administration's nuclear export policy, it is important to understand two points. First, we have not and will not approve any nuclear-related exports which could assist a non-weapons state to develop nuclear explosives. The NNPA contains stringent non-proliferation conditions for significant nuclear assistance to other countries, and this administration continues to apply those requirements rigorously. Our policy of permitting the transfer of a limited number of non-sensitive items or services to nonweapons states which do not accept comprehensive safeguards is fully consistent with both the letter and spirit of the law.

Second, our willingness to consider such limited exports—within the scope of the applicable statute—proceeds in part from the clear evidence that the overly restrictive policy implemented in the past was simply not achieving meaningful nonproliferation results. Further, the earlier policy severely restricted our access to countries of proliferation concern which we must persuade to move in more responsible directions with respect to nuclear development.

So, Mr. Chairman, the administration believes that our efforts at reopening a dialogue with non-NPT states has achieved substantial gains.

First, limited nuclear cooperation has created a much improved climate in our nuclear relations with several important nations. This improved atmosphere is an essential precondition for the kinds of negotiations and discussions which can eventually produce significant nonproliferation results. For example, we have recently had two rounds of very positive discussions with the Government of Brazil. In those discussions we have been able to detail the benefits Brazil could expect from the broad-

er nuclear cooperation which would be possible if that country accepted safeguards over its entire fuel cycle. The Brazilians regarded the enactment of the NNPA and subsequent withdrawal of U.S. nuclear cooperation as a tremendous affront which increased pressures to develop indigenous sensitive nuclear facilities and to seek material and equipment from other suppliers with less stringent export requirements. Not only did this U.S. "denial" policy fail to move Brazil toward the NPT and broader safeguards coverage, it had a pronounced negative effect over the entire range of bilateral relations between the United States and this largest nation in Latin America.

The better climate I have just spoken about has permitted us to get a reasonably positive hearing on several specific, important non-proliferation issues with a number of relevant nations with which we had little or no dialogue on such issues. Among these countries are some which, for example, are rapidly moving toward an ability to become nuclear suppliers in their own right. If they fail to apply reasonable export requirements (e.g. by insisting that the importing state apply IAEA safeguards) the entire non proliferation system could be undermined. We have had positive reactions from some of the non-NPT nations we have approached on this critical issue regarding their future role as nuclear exporters. We have been able to describe in detail some specific measures they might adopt to assure that their nuclear cooperation with other nations does not increase the risks of nuclear explosives development. The ability to permit modest levels of nonsensitive nuclear cooperation helps to generate the positive atmosphere without which it would be very difficult to obtain reguard access to key persons we need to contact concerning this important issue.

Another benefit that flows from maintaining a limited degree of nonsensitive nuclear cooperation with some of these countries is the information which comes to us from U.S. industry and technical people who visit nuclear facilities in connection with such exports.

Whether the United States maintains bilateral nuclear relations with nations of proliferation concern—or not—they are all participants in multilateral organizations which deal with nuclear matters. Therefore, we have an interest in securing the cooperation of these countries on issues which arise in these international fora. A specific example is the International Atomic Energy Agency, where we have recently been confronted by disruptive attempts to turn the Aency away from its primary technical and safeguards goals toward divisive political debate. At recent meetings of the Board of Governors and General Conference the politicizing tendencies which had been reducing the utility of the IAEA appear to have been reversed. OUr more cooperative relations with several key non-NPT nations have enabled us to detail the damaging effects of politicizing the IAEA, and in turn we have had much greater cooperation in dealing with these issues. I won't argue that limited nuclear cooperation, alone, has produced this result. However, in several instances it has not been a negligible factor.

Thus, Mr. Chairman, I think it is clear that our dialogue with other states is beginning to produce positive results, and that dialogue is in no small part attributable directly to our willingness to consider the export of non-sensitive items.

CONTROLS OVER DUAL-USE EXPORTS

You have also asked that I address current efforts by the Executive Branch to develop meaningful controls over nuclear related, dual-use exports. Before describing some of our efforts, a little background on this issue may be useful.

Two categories of commodities are controlled by the United States for non-proliferation purposes. The first relates to the nuclear fuel cycle. Restraint of exports related to it is intended to deny potential proliferators access to the fissile material needed to construct a nuclear explosive device. The second category pertains to items which may be used in the design, fabrication and testing of the explosive device itself. Examples of such items include sophisticated computers and diagnostic equipment, very precise machine tools, or special materials like high purity calcium.

Because most of these items may be used for industrial activities not related to the development of nuclear explosive devices, they fall within the category of "dual-use" items. These exports pose very difficult export control issues because of their broad applicability to routine industrial activities which have no proliferation significance; because they are often widely available from alternative suppliers; and because their usefulness to a proliferator may depend on the particular technical and industrial infrastructure of that nation, as distinguished from the capabilities of other nations of concern. The successful regulation of dual-use exports requires a particularly sophisticated control system based on technical evaluation, intelligence

information and foreign policy analysis. In the United States export control system these items are licensed by the Commerce Department and compiled on a Nuclear Referral List, which is part of the Department's Commodity Control List. The Nuclear Referral List consists of 63 items; 26 are related to the nuclear fuel cycle, and 37 to the development of nuclear explosive devices. Other supplier nations also control many of these items under their own domestic systems.

We have attempted to address the dual-use problem in several ways. An essential activity in this regard is furnishing other governments with up-to-date information concerning exports of concern. We do this on an individual basis and in consultations on broader questions. The individual approach is used when information comes to our attention concerning a single transaction which may raise proliferation concerns regarding a proposed dual-use export. If our U.S. export control process identifies an application for an item destined for an end-use or end-user we find questionable from a nuclear explosives perspective, we would—of course—deny a license to export that item. At the same time we attempt to identify possible alternative suppliers and to advise them that we have denied an export and to urge them to take similar action if a similar export request is made to their own suppliers. We have generally received good cooperation from other suppliers on such export demarches. Nevertheless, with regard to dual use items, we have on occasion experienced difficulty in persuading some foreign countries—basically nonnuclear weapons states—that such items should be controlled. A primary problem has been providing sufficient information on an item's suitability for explosives use promptly enough to forestall a foreign government's favorable action on a questionable export. When we attempt to persuade foreign governments to deny particular exports, we must be able to supply sufficient information to make a strong case that such transfers pose a genuine proliferation risk; and time is often of extreme essence in halting an export.

The second approach we have used during the past two years has been to make broadly based presentations concerning the dual-use problem by a team of U.S. export control officials to other supplier governments in a series of discussions in foreign capitals. This approach has enabled us to provide a substantial amount of technical and policy information to the foreign officials who must implement their own export controls. We have emphasized that this is a problem shared by all suppliers We have received positive reactions and useful comments from other governments on these dual-use export consultations, and expect to continue them in the future. In addition to all major European suppliers, we have held such discussions with the Japanese, and have begun to include some nations which are only now developing an ability to export items of concern. It is extremely important that these "emerging suppliers" understand the dual-use problem and take early measures to address it.

Some of the specific problems in dealing with this extremely complex field of export control were analyzed in a report by the General Accounting Office issued September 1 of this year. The report, originally requested by Congressman Jonathan Bingham, former chairman of one of your subcommittees, sets forth a useful analysis of this area. The most significant finding in the report is the following sentence which begins Chapter Five on foreign availability, and I quote: "The effectiveness of U.S. export controls for dual-use, nuclear-related items depends on the degree of cooperation the United States receives from other supplier countries." The crucial term here is cooperation. That can only be achieved through sharing of information, taking into account the views of others, and attempting to resolve differences through negotiation and compromise; not through unilateral measures. A significant aspect of the report is the decision of its authors not to urge any specific recommendations for changes in the system on agencies which are currently attempting to deal with this difficult problem. While we recognize that there are weaknesses in our system, and that improvements can and must be made, I think that if you will examine the GAO's report carefully you will be convinced that U.S. export control agencies are diligently working to address this very complex, technical, legal and national security issue. There are no quick fixes for this problem—legislative or otherwise. Rather, this field requires the exercise of informed expert judgment on a multitude of individual cases on a day-by-day basis.

THE INTERNATIONAL ATOMIC ENERGY AGENCY

Since I last testified before the Committee, a great deal has occurred in the International Atomic Energy Agency (IAEA). As you are aware, we left the General Conference in 1982 in protest against the illegal rejection of the credentials of the Israeli delegation. Since then, we have been pleased that our message to the IAEA mem-

bership seems to have been heard and heeded. Our extensive consultations with many members demonstrated that the great majority agreed with us on the need to reduce politicization in the IAEA. Following an extensive reassessment of U.S. participation in the IAEA, the President approved the resumption of U.S. participation and agreed that the IAEA safeguards system performs a critical rule for U.S. national security, non-proliferation, and peaceful nuclear cooperation interests. Significantly, the February, June and October meetings of the IAEA Board of Governors were businesslike and devoid of excess rhetoric or divisive dispute.

The recently concluded General Conference, while not totally free from problems, marked a significant step in our efforts to reverse the tide of politicization in the Agency. Two resolutions which the United States vigorously did pass. These includes an Iraqi resolution on Israel's alleged threat to repeat attacks on Arab nuclear facilities and a resolution condemning South Africa. The Iraqi resolution did not affect Israel's right of participation in the Agency and, in fact, an attempt by Iran to challenge Israel's credentials was defeated by a substantial majority. The resolution on South Africa called on the Board of Governors of the IAEA to consider excluding that country from technical working groups but did not call for suspension. While not without difficulty, overall, this year's General Conference was a far more businesslike, temperate meeting than last year's, reflecting strenuous U.S. efforts to "de-politicize" the Agency. We will continue these efforts in the future.

In the meantime, we are encouraged, Mr. Chairman, that the majority of the membership appears to agree that (1) the IAEA is a useful and worthwhile organization, (2) that extraneous political posturing and actions which threaten to destroy the IAEA are counterproductive, and (3) it is time to concentrate on the main objective of the IAEA—to make available the benefits of peaceful nuclear technology under appropriate safeguards. In this regard, I should emphasize that continued progress at the Agency is also dependent on the U.S. contributing its full share to the Agency's budget.

This concludes my formal statement, Mr. Chairman. I know that you and other Members of the Committees have a number of questions you wish to ask and I would be happy to respond to them at this time. Thank you, Mr. Chairman.

Mr. BONKER. I think we will go ahead and hear from Mr. Adelman before we open for questions.

STATEMENT OF HON. KENNETH L. ADELMAN, DIRECTOR, U.S. ARMS CONTROL AND DISARMAMENT AGENCY

Mr. ADELMAN. Thank you, Mr. Chairman.

I am going to be less comprehensive and quite rapid. I have my full statement. I would appreciate it being submitted for the record.

Mr. BONKER. Hearing no objection.

Mr. ADELMAN. Mr. Chairman, the last time I met with the Foreign Affairs Committee we talked about strategic arms control questions. Today, however, I will discuss another issue, every bit as important though far less in the public limelight, preventing the spread of nuclear weapons. Nonproliferation is a fundamental part of this administration's arms control policy, and it remains a critical item on our national security agenda.

NONPROLIFERATION STRATEGY

Creating an effective nonproliferation strategy is a tremendous challenge. It is a challenge which requires many small but important steps, each of which contributes to the main goal of keeping the world as safe as we possibly can. Success is partially measured not by what does happen, but by what does not. Hence, results are more elusive than in other aspects of arms control but, I am sure you would agree, no less vital. It is a challenge, however, which we are meeting head on, and with a number of successes that I want to share with you.

CONSTRUCTIVE DIALOG

Constructive dialog between the executive branch and Congress, such as this hearing, is an important element in our nonproliferation efforts.

The further spread of nuclear weapons would gravely threaten international stability by jeopardizing the security of the United States, our allies and friends, and others.

Since the beginning of this administration, President Reagan has upheld the longstanding U.S. commitment to a vigorous nonproliferation policy and participated in its day-to-day implementation. We work very closely with Ambassador Kennedy, the Department of State, and other interested agencies and will continue to do so.

ACDA'S RESOURCES FOR NONPROLIFERATION

At this point I would like to comment on the resources in ACDA available to deal with nonproliferation issues. As you know, when I assumed office, ACDA did not have a confirmed assistant director in charge of the bureau dealing with nonproliferation, and there had been some attrition of the ACDA nonproliferation staff, as there had been of the ACDA staff as a whole. I have taken steps to remedy this situation.

One of my first priorities has been to fill the position of assistant director for the Nuclear Weapons and Control Bureau by a highly qualified individual with extensive experience on nonproliferation issues. I am pleased that the President chose Lewis Dunn to fill this important position. The announcement of that nomination was made 2 weeks ago, and the Secretary should hold the confirmation hearings just next week.

We have been fortunate to have not only a healthy inflow of new individuals with new ideas, but also a continuity of experienced professionals involved with nonproliferation issues on the ACDA staff. In a relatively small group, we bring together foreign affairs specialists and nuclear scientists, engineers, area specialists, safeguards experts and international lawyers to focus their collective efforts on this critical problem.

ACDA is one of the Government's most active and important safeguards resources.

ADMINISTRATION'S NONPROLIFERATION STRATEGY

Let me now turn to the administration's nonproliferation strategy. A major thrust of U.S. efforts has been to work toward reducing the motivations which can move nations into thinking about acquiring nuclear weapons. Strong security relationships and a genuine readiness to support regional stability are essential if we are to create an international climate of security. Conventional arms transfers can play an important role in this regard.

Our nonproliferation policy is firmly grounded as well on existing international agreements and institutions. We have worked hard not only to assure that this foundation remains solid, but we have also buttressed it through vigorous diplomacy and new initiatives.

In commemorating the 15th anniversary of the NPT on July 1, President Reagan noted that the U.S. would strive to strengthen this critical treaty. In the past 2 years we have seen five new adherents to the NPT, including Egypt. The executive branch is continuing to seek ways to enhance the attractiveness of the treaty and to encourage still additional countries to become parties.

NPT REVIEW CONFERENCE

Preparations for the 1985 NPT Review Conference are now well underway, with ACDA leading an interagency effort to develop and implement a strategy for that conference. Our goal is a reaffirmation by all parties of the vital contribution of this treaty to international order and global security.

While a few countries still remain outside the Latin American Nuclear Weapons Free Zone Treaty—Treaty of Tlatelolco—a major step toward full entry into force of this treaty was taken when the United States ratified protocol I of the treaty in 1981. President Reagan was able to secure final Senate action, which had been delayed since 1978, and this action was welcomed by many Latin American states. We are continuing to urge full adherence to the treaty and its protocols by all concerned countries.

NEED TO STRENGTHEN IAEA

There is also room for further progress in strengthening the International Atomic Energy Agency. In a time of budgetary stringency, we have worked to insure that resources will remain available to strengthen the safeguards regime.

Over the past few years, however, extraneous political activity became an increasing burden on the IAEA.

Let me tell you from my 2 years of experience at the United Nations, this is a tremendous threat, not to be underestimated, to the viability of the international organizations as a whole, and including of course the IAEA.

NEED FOR COOPERATION AMONG NUCLEAR SUPPLIES

The administration has also encouraged additional cooperation among nuclear supplier countries. There has been a growing recognition of the need for improving and tightening international guidelines which countries follow in their nuclear exports.

I particularly hope that we can move closer to agreement among the major suppliers on comprehensive safeguards as a condition for any significant new nuclear supply commitments.

I would like to turn now to H.R. 1417 and H.R. 3058, both of which the administration strongly opposes.[1]

ADMINISTRATION'S POSTION ON LEGISLATION

The first is the virtual ban on nuclear cooperation with nonnuclear weapon states that do not have all their nuclear activities under IAEA safeguards; and the second is the opposition to reproc-

[1] See ACDA comments on H.R. 1417 in appendix 17 and on H.R. 3058 in appendix 18.

essing and use of plutonium, even in countries where this presents no proliferation risk.

The Nuclear Non-Proliferation Act of 1978 recognizes that under certain conditions very limited nuclear cooperation with states having some unsafeguarded nuclear activities can serve U.S. nonproliferation interests. It does so through a carefully crafted set of procedures for nuclear exports, geared to the degree of proliferation concern they present.

A country's unwillingness to accept IAEA safeguards on all its nuclear activities does, and should, preclude it from receiving major assistance from the United States. However, minor assistance to safeguarded facilities is permitted as long as statutory requirements are met, which they are, and as long as it serves our broader national interests.

INTERAGENCY REVIEW IN DUAL USE ITEMS

A careful and effective review process, in which ACDA fully participates, also exists for dual-use items which, if misused, could be of significance for nuclear explosive purposes.

This overall approach, which conditions export requirements on the degree of proliferation concern, is sound. Such limited U.S. assistance will not help countries acquire nuclear weapons, but it can help us to keep open channels of communication with these countries and thereby help us to move them toward acceptable policies and away from any acquisition of nuclear weapons.

Many of you on these subcommittees have strongly urged the continuation of arms control talks with the Soviet Union in the face of suggestions by some people that Soviet provocations call for a suspension of such talks. Such talks with the Soviets are correctly viewed as a potentially key factor in promoting nuclear stability and lowering the nuclear arsenals of the superpowers. Many would agree that, while progress is difficult, it would be impossible if there were no dialog.

ARGENTINA-BRAZIL

Our discussions with countries like Argentina and Brazil are important over the long run in precisely the same manner. Nonsensitive and limited cooperation with these countries' nuclear programs can support and help us achieve our goal of a more peaceful and stable world order. A total prohibition on such minor exports will not help these countries to accept, for example, international export norms or to move closer to our nonproliferation views. Stopping the nuclear dialog with such states cannot be any more beneficial than would stopping the nuclear dialog with the Soviet Union.

Greatly expanding the list of items not to be exported unless a country has safeguards on all its nuclear activities would also complicate the President's efforts to forge a consensus among suppliers to require comprehensive safeguards on new commitments.

APPROVAL FOR REPROCESSING

Other provisions of H.R. 1417 and H.R. 3058 deal with consent over reprocessing of U.S.-controlled fuel and with plutonium and highly enriched uranium fuels.

The proposed legislative changes would have virtually no impact in countries of proliferation concern. Rather, they would only adversely affect the programs of our friends and allies in Japan and Western Europe, all of whom have solid nonproliferation policies.

U.S. policy on exports of HEU has remained essentially consistent through the Ford Carter, and Reagan administrations, and has received unprecedented international support.

Cooperation among suppliers and consumers in reducing the enrichment level of fuels in research reactors has been exceptionally good.

U.S. high enriched uranium exports for research reactors are expected to be reduced by a factor of three by 1986 and by 1989 such exports could be essentially eliminated.

NEED FOR INTERNATIONAL COOPERATION

The key to continued success is internatinal support and cooperation. The provisions of H.R. 1417 and H.R. 3058 related to HEW licensing would likely result in a sharp reduction in this cooperation.

In all of our efforts, the United States can and should take the lead in seeking the strongest possible nonproliferation institutions and practices. But we cannot forget that now, more than ever, international cooperation is essential to solving proliferation problems. We cannot force other countries to adopt U.S. approaches; we cannot tell our allies and friends to forego steps thought vital to their energy security . We must rely on persuasion and communication, sharing our concern with other states and urging them to support nonproliferation goals.

PROGRESS ON NONPROLIFERATION

We cannot, nor should we, rest in our efforts. We can, however, be encouraged by the progress made by the United States and others thus far in the nuclear age.

Despite the increase over the past three decades of the number of nations which are technically able to acquire nuclear weapons, the number which have opted for nuclear arsenals is much smaller than many have predicted and feared.

For example, in 1958 a special committee of the National Planning Association predicted in a monograph that "by 1970, most nations with appreciable military strength will have in their arsenals nuclear weapons—strategic, tactical, or both." Similarly, the concerns President Kennedy voiced over 20 years ago that there could be 15 or 20 nuclear powers by 1975 have been proved wrong.

Rather, a norm of nonproliferation has emerged, slowly but distinctly. The foundations of this regime and the international institutions and practices which have evolved have strong roots. Nonetheless, we all must nurture them and foster their growth. In the area of nonproliferation there is no room for complacency.

While there may be some differences of opinion on the best course of action, I have found a strong common view across the political spectrum with regard to our nonproliferation objectives. Innovative ideas and constructive proposals in this area have come from the Congress and from the executive branch, from the Government and the private sector.

However, in working with other countries, we often need flexibility to achieve our goals. To this end we must convince other nations on the merits of the case that a course of action is best. We must recognize that the proper balance between statute and policy can serve our overall nonproliferation interest.

I look forward to continuing to work closely with this committee and others in the Congress who share a common goal in this critical area.

[Mr. Adelman's prepared statement follows:]

PREPARED STATEMENT OF HON. KENNETH L. ADELMAN, DIRECTOR, U.S. ARMS CONTROL AND DISARMAMENT AGENCY

Mr. Chairman, members of the committee: I am happy to have the opportunity to appear before you today. The last time I met with the Foreign Affairs Committee, we talked about strategic arms control questions. Today, however, I will discuss another issue, every bit as important though far less in the public limelight—preventing the spread of nuclear weapons. Non-proliferation is a fundamental part of this Administration's arms control policy, and it remains a critical item on our national security agenda.

Creating an effective non-proliferation strategy is a tremendous challenge. It is a challenge which requires many small but important steps, each of which contributes to the main goal of keeping the world as safe as we possibly can. Success is partially measured not by what does happen, but by what does not. Hence, results are more elusive than in other aspects of arms control, but, I am sure you would agree, no less vital. It is a challenge, however, which we are meeting head on—and with a number of successes that I want to share with you.

Constructive dialogue between the executive branch and Congress, such as this hearing, is an important element in our non-proliferation efforts. Only by working together, across partisan lines, can we achieve our goals. I want to assure this Committee that reducing the risk of nuclear proliferation is a peraonal priority of mine, and it has been given special emphasis in the Arms Control and Disarmament Agency [ACDA].

The further spread of nuclear weapons would gravely threaten international stability by jeopardizing the security of the United States, our allies and friends, and others. Acquisition of nuclear weapons by additional countries would only serve to heighten regional tensions, while dramatically increasing the chance for localized conflict by generating suspicions among neighboring nations. Possession of a few, crude nuclear weapons by long-time enemies in conflict-prone regions presents one of the greatest dangers of nuclear conflict.

Since the beginning of this Administration, President Reagan has upheld the longstanding U.S. commitment to a vigorous non-prolifration policy. As he said in his September address before the UN General Assembly: "We must ensure that world security is not undermined by the further spread of nuclear weapons. Nuclear proliferation must not be the forgotten element of the world's arms control agenda." The approach that he outlined in his policy statement of July 1981 combined a strengthening of previous successful efforts with innovative policies designed for the future. We continue to follow this approach today.

We in ACDA have actively contributed to development of the President's non-proliferation policy and participate in its day-to-day implementation. We work very closely with Ambassador Kennedy, the Department of State and other interested agencies and will continue to do so.

At this point, I would like to comment on the resources in ACDA available to deal with non-proliferation issues. As you know, when I assumed office, ACDA did not have a confirmed Assistant Director in charge of the Bureau dealing with non-proliferation, and there had been some attrition of the ACDA non-proliferation staff, as there had been of the ACDA staff as a whole. I have taken steps to remedy this situation.

One of my first priorities has been to fill the position of Assistant Director for the Nuclear Weapons and Control Bureau by a highly-qualified individual with extensive experience on non-proliferation issues. The announcement of that nomination was made two weeks ago. We have been fortunate to have not only a healthy inflow of new individuals with new ideas, but also a continuity of experienced professionals involved with non-proliferation issues on the ACDA staff. In a relatively small group, we bring together foreign affairs specialists and nuclear scientists, engineers, area specialists, safeguards experts and international lawyers to focus their collective efforts on this critical problem.

ACDA also is one of the Government's most active and important safeguards resources. ACDA staff helped to energize and served as U.S. contact point for the successfully concluded Hexapartite Safeguards Project, which provides for effective and efficient safeguards at centrifuge uranium enrichment plants. ACDA's staff supports and provides advice to the IAEA on its safeguards approaches, and is focusing increased attention on how to strengthen safeguards at future large reprocessing plants.

Let me now turn to the Administration's non-proliferation strategy. A major thrust of U.S. efforts has been to work toward reducing the motivations which can move nations into thinking about acquiring nuclear weapons. Strong security relationships and a genuine readiness to support regional stability are essential if we are to create an international climate of security. Conventional arms transfers can play an important role in this regard. Prudently used, they can assist our friends and allies in meeting their legitimate needs for self-defense. By contributing to the self-confidence of these countries in their security, arms transfers can help reduce pressures to acquire nuclear explosives.

Our non-proliferation policy is firmly grounded as well on existing international agreements and institutions, such as the Nuclear Non-Proliferation Treaty [NPT], the Treaty for the Prohibition of Nuclear Weapons in Latin America (Tlatelolco Treaty), the International Atomic Energy Agency [IAEA], and international cooperation among suppliers. We have worked hard not only to assure that this foundation remains solid, but we have also buttressed it through vigorous diplomacy and new initiatives.

In commemorating the 15th anniversary of the NPT on July 1, President Reagan noted that the United States would strive to strengthen this critical Treaty. In the past 2 years, we have seen five new adherents to the NPT: Egypt, Papua New Guinea, Nauru, Uganda, and the Socialists Republic of Vietnam. The Executive Branch is continuing to seek ways to enhance the attractiveness of the Treaty and to encourage still additional countries to become parties.

Preparations for the 1985 NPT Review Conference are now well underway, with ACDA leading an interagency effort to develop and implement a strategy for that Conference. Our goal is a reaffirmation by all parties of the vital contribution of this Treaty to international order and global security. Last summer, encouraged by the United States, over 50 NPT parties co-sponsored a letter to the Secretary-General of the United Nations requesting that the issue of the Review Conference be placed on this fall's General Assembly's agenda. Similarly, we are urging broad support among NPT parties for the resolution concerning the Review Conference to be passed by the UNGA later this fall. We expect that the first preparatory meeting will be held next spring. As it has in the past, ACDA will continue to provide leadership for all subsequent prepartations for the Review Conference and the Conference itself.

While a few countries still remain outside the Latin American Nuclear Weapons Free Zone Treaty (Treaty of Tlatelolco), a major step toward full entry into force of this Treaty was taken when the United States ratified Protocol I of the Treaty in 1981. President Reagan was able to secure final Senate action, which had been delayed since 1978, and this action was welcomed by many Latin American states. We are continuing to urge full adherence to the Treaty and its Protocols by all concerned countries.

There is also room for further progress in strengthening the International Atomic Energy Agency. In a time of budgetary stringency, we have worked to ensure that resources will remain available to strengthen the safeguards regime. Just this past year we provided $13 million, both in assessments and voluntary contributions, to the IAEA safeguards program. And, more importantly, IAEA efforts and the international support programs, particularly that of the U.S., are having positive impact in terms of safeguards effectiveness and efficiency. For example, with only a modest increase in the number of inspectors, the IAEA was able to increase its mandays of inspection at nuclear facilities by 25% at the end of 1982. A strong IAEA and an

improved international safeguards regime are essential to an effective non-proliferation policy.

Over the past few years, however, extraneous political activity became an increasing burden on the IAEA. The problem reached its zenith during the September 1982 General Conference of the IAEA when Israel's credentials were illegally rejected. At the recently concluded 1983 General Conference, by contrast it was clear that a number of IAEA members were seeking to encourage a moderate and conciliatory approach to the discussion of potentially divisve issues. The U.S. worked strenuosly during the past year to counsel such moderation and to make clear that we would not support a politicized Agency. We are encouraged, therefore, by the outcome of this year's session. The IAEA plays a key rcle in the current non-proliferation regime and in international nuclear commerce. We hope that the strong stand taken by the United States—the Administration and the Congress together—can help to ensure the Agency's long-term health and success, without this counterproductive politicization.

The Administration has also encouraged additional cooperation among nuclear supplier countries. There has been a growing recognition of the need for improving and tightening international guidelines which countries follow in their nuclear exports. Working with other major suppliers, we are striving to bring existing controls up to date. Better controls help to buy important time—time, for example, to reduce the motivations for acquiring nuclear explosives.

I particularly hope that we can move closer to agreement among the major suppliers on comprehensive safeguards as a condition for any significant new nuclear supply commitments. President Reagan has on several occasions called for support of this important objective and raised it with key Heads of State. Ambassador Kennedy has discussed it in his bilateral talks with other governments over the past year. It is a major item on our diplomatic agenda.

I would like to turn now to H.R. 1417 and H.R. 3058, both of which the Administration strongly opposes. Our specific objections have been detailed separately in letters to Chairman Zablocki, and I will not repeat them here. Instead, I think it would be more useful to address two general aspects of these bills.

The first is the virtual ban on nuclear cooperation with non-nuclear weapon states that do not have all their nuclear activities under IAEA safeguards; and the second is the opposition to reprocessing and use of plutonium, even in countries where this presents no proliferation risk.

The Nuclear Non-Proliferation Act of 1978 recognizes that under certain conditions very limited nuclear cooperation with states having some unsafeguarded nuclear activities can serve U.S. non-proliferation interests. It does so through a carefully crafted set of procedures for nuclear exports, geared to the degree of proliferation concern they present. A country's unwillingness to accept IAEA safeguards on all its nuclear activities does, and should, preclude it from receiving major assistance from the United States. However, minor assistance to safeguarded facilities is permitted as long as statutory requirements are met, which they are, and as long as it serves our broader national interests.

A careful and effective review process, in which ACDA fully participates, also exists for dual-use items, which, if misused, could be of significance for nuclear explosive purposes. These items are identified, and their export is subject to prior review. The United States does not export any dual-use item if there is any risk that the item will significantly contribute to proliferation.

This overall approach, which conditions export requirements on the degree of proliferation concern, is sound. Such limited U.S. assistance will not help countries acquire nuclear weapons, but it can help us to keep open channels of communication with these countries and thereby help us to move them toward accepted policies and away from any acquisition of nuclear weapons.

Many of you on these Subcommittees have strongly urged the continuation of arms control talks with the Soviet Union in the face of suggestions by some people that Soviet provocations call for a suspension of such talks. Such talks with the Soviets are correctly viewed as a potentially key factor in promoting nuclear stability and lowering the nuclear arsenals of the superpowers. Many would agree that while progress is difficult, it would be impossible if there were no dialogue.

Our discussions with countries like Argentina and Brazil are important over the long run in precisely the same manner. Non-sensitive and limited cooperation with these countries' nuclear programs can support help us achieve our goal of a more peaceful and stable world order. A total prohibition on such minor exports will not help these countries to accept, for example, international export norms or to move closer to our non-proliferation views. Stopping the nuclear dialogue with such states

cannot be any more beneficial then would stopping the nuclear dialogue with the Soviet Union.

What gains have there been from these dialogues? Regrettably, I cannot claim that any dramatic results have been achieved. But there have been some results. Our discussions with Argentina have been useful in identifying common non-proliferation interests and the importance for all suppliers of a responsible nuclear export policy. At the same time, Argentina has recently voluntarily placed a few tonnes of heavy water under safeguards, resolving a long-standing ambiguous situation. Similarly, our talks with Brazil, an important emerging nuclear supplier, have allowed us to discuss ways to ensure that nuclear exports do not contribute to proliferation.

Greatly expanding the list of items not to be exported unless a country has safeguards on all its nuclear activities would also complicate the President's efforts to forge a consensus among suppliers to require comprehensive safeguards on new supply commitments. U.S. and Allied views would be further apart on those items which should be considered "significant" and, thus, whose export should require comprehensive safeguards. Moreover, other countries may suspect that we have a "hidden agenda" and fear that the U.S. will seek to go beyond any initial list of items triggering comprehensive safeguards in yet more restrictive legislation in the future.

Other provisions of H.R. 1417 and H.R. 3058 deal with consent over reprocessing of U.S.-controlled fuel and with plutonium and highly enriched uranium (HEU) fuels. In particular, Title III of H.R. 1417 and Section 5 of H.R. 3058 would increase the procedural and substantive requirements for the exercise of U.S. consent rights over reprocessing and use of plutonium. Both bills also propose rigid licensing requirements for HEU fuel that would interject the U.S. into the domestic nuclear regulatory process of other countries.

The proposed legislative changes would have virtually no impact in countries of proliferation concern. Rather, they would only adversely affect the programs of our friends and allies in Japan and Western Europe, all of whom have solid non-proliferation policies. They would hamper our ability to regularize our nuclear cooperation with countries whose intentions are above reproach, and who are using or planning to use plutonium as a fuel in their civil nuclear programs. Our bilateral relations with countires whose support we need for effective non-proliferation efforts would suffer.

We believe that long-term consent to reprocessing and plutonium use in Japan and Western Europe, where statutory and non-proliferation conditions are met will better serve non-proliferation objectives. It will help place our nuclear cooperation with these countries on a firm, long-term basis, thereby enhancing the prospects of agreement on issues of major proliferation concern, such as exports to countries or regions of instability. It will also provide more chances to help enhance controls over plutonium and cooperation to improve IAEA safeguards on facilities that contain plutonium. Passage of H.R. 1417 or H.R. 3058 would seriously jeopardize these goals.

U.S. policy on exports of HEU has remained essentially consistent through the Ford, Carter, and Reagan administration and has received unprecedented international support. The United States has played a leading role since the mid-1970s in alerting others to the dangers posed by HEU. Our own HEU export licensing procedures involve technical and economic reviews of proposed exports, efforts to encourage substitution of fuels of lower enrichment where feasible, and a sensitivity to in-country inventories.

Cooperation among suppliers and consumers in reducing the enrichment level of fuels in research reactors has been exceptionally good. Nearly all states have recognized the serious risks, particularly from terrorists, that are posed by [illegible] of civil commerce in HEU. Alternative fuels of lower enrichments have been demonstrated for some reactors, and progress continues to be made on advanced fabrication technologies for other research reactors currently using HEU. According to the projections of Argonne National Laboratory, the U.S., technical leader in this effort, U.S. high enriched uranium exports for research reactors are expected to be reduced by a factor of three by 1988, and by 1989 such exports could be essentially eliminated. The key to continued success is international support and cooperation. The provisions of H.R. 1417 and H.R. 3058 relating to HEU licensing would likely result in a sharp reduction in this cooperation.

The threat of nuclear proliferation requires a constantly vigilant nuclear export control system but the system must also be able to differentiate among exports in terms of proliferation risk. The administration's future non-proliferation agenda will involve vigorous efforts:

To promote regional security;

To strengthen and to ensure the continued vitality of the NPT;

To help bring the Latin American Nuclear Weapons Free Zone fully into force;

To promote an effective IAEA with emphasis on reducing political controversy and on improving IAEA safeguards;

To encourage close cooperation among all supplier countries and seek ways to encourage responsible nuclear export policies by emerging supplier states;

To administer a rigorous domestic nuclear export control system that facilitates cooperation with countries posing no proliferation risk and restricts cooperation with countries having unsafeguarded nuclear activities; and

To emphasize to countries having unsafeguarded nuclear activities that such activities generate regional instability and to urge them to take concrete steps toward reassuring others of their claimed peaceful intentions.

In all of these efforts, the United States can and should take the lead in seeking the strongest possible non-proliferation institutions and practices. But we cannot forget that now, more than ever, international cooperation is essential to solving proliferation problems. We cannot force other countries to adopt U.S. approaches; we cannot tell our allies and friends to forego steps thought vital to their energy security. We must rely on persuasion and communication, sharing our concern with other states and urging them to support non-proliferation goals.

We cannot, nor should we, rest in our efforts. We can, however, be encourage by the progress by the United States and others thus far in the nuclear age.

Despite the increase over the past three decades of the number of nations which are technically able to acquire nuclear weapons, the number which have opted for nuclear arsenals is much smaller than many have predicted and feared. For example, in 1958 a special committee of the National Planning Association predicted in a monograph, "1970 Without Arms Control," that "by 1970, most nations with appreciable military strength will have in their arsenals nuclear weapons—strategic, tactical or both." Similarly, the concerns President Kennedy voiced over 20 years ago that there could be 15 or 20 nuclear powers by 1975 have been proved wrong.

Rather, a norm of nonproliferation has emerged, slowsly but distinctly. The foundations of this regime and the international institutions and practices which have evolved have strong roots. Nonetheless, we all must nuture them and foster their growth. In the area of nonproliferation there is no room for complacency.

While there may be some differences of opinion on the best course of action, I have found a strong common view across the politcial spectrum with regard to our nonproliferation objectives. Innovative ideas and constructive proposals in this area have come from the Congress and from the Executive Branch, from the Government and the private sector. However, in working with other countries, we often need flexibility to achieve our goals. To this end, we must convince other nations on the merits of the case that a course of action is best. We must recognize that the proper balance between statute and policy can serve our overall nonproliferation interest. I look forward to continuing to work closely with this committee and others in the Congress.

Mr. BONKER. Thank you both. You certainly have given us a good basis for a discussion of this most important and timely topic.

Ambassador Kennedy, looking at pages 3 and 4 of your statement, I get the distinct impression that you are rather hostile to the two bills pending before the subcommittees. You say that you strongly oppose the legislation because it would clearly impede rather than aid our nonproliferation efforts. You go on to say that it will produce contentious debate, and injure our ability to achieve overall nonproliferation objectives; that changes in the law at this time would be disruptive and would seriously undercut our efforts to restore the position of the United States as a potential supplier. Further changes in nonproliferation law at this time would create a high degree of uncertainty, discontent, and misdirection and undermine the U.S. role in international nuclear affairs, thereby hindering our efforts to reforge cooperative ties, and eroding confidence of our allies and trading partners.

Seldom have I seen such a barrage of statements against legislation. Yet a few weeks ago we incorporated the heart of the Wolpe

legislation in the Export Administration Act and it didn't seem to be terribly disruptive at all. As chairman of this subcommittee and floor manager of the bill, I have not heard any discomforting noises from the administration or from our allies. I have been in touch with the Ambassadors of the various NATO countries regarding COCOM and import controls and other matters addressed by the bill. Nobody has raised any problems or serious questions regarding the nuclear provisions.

I know it will be one of the more debatable subjects when we go into conference. But all of these forebodings that you share with us today certainly have not been realized as a result of our adoption of the Wolpe amendment. I might also say that I opposed the Wolpe amendment on the floor on the basis of procedural concerns, but I have not really seen the terrible reaction which you have predicted.

Are you familiar with the Wolpe amendment?

Ambassador KENNEDY. Yes, sir; I am.

Mr. Chairman, let me, if I may, suggest I did not intend to suggest hostility. Opposition is different. Opposition strenuously, yes. Hostility, no. We are not hostile to anything that the Congress does. We respect it fully.

Let me suggest, if I may, the difficulty that we see—and I think the Wolpe amendment may well lead us in that direction. We recognize the intentions which its authors had, intentions generally speaking which, as Mr. Adelman has so well stated, we share.

PROPOSED CHANGES IN COOPERATION AGREEMENTS

Nonetheless, there are serious questions which will arise, and they have been posed by many of our friends and allies.

As I indicated, we have been discussing, for example, some changes in the existing agreements for cooperation with our European allies, in particular, and with Japan as well. These are mandated by the Non-Proliferation Act.

The concern most often expressed has been, "If we sit down and negotiate a new agreement, what is to say that we won't be called upon to do the same again a year from now?"

There is a deep concern, Mr. Chairman, that we will not in this field remain constant in the sense of maintaining a consistent, a predictable, and a reasonable policy. And thus it is much more difficult for us, those of us who must sit down and try to negotiate these things, to try to get the cooperation which is absolutely essential.

NEED FOR COOPERATION ON DUAL-USE ITEMS

I think Mr. Adelman and I have both stated, and this is the administration's view without question, that cooperation is the key word. It, by the way, was the word as I mentioned which was so often cited in the General Accounting Office report with respect to the dual-use question.

The concern is that after all this time there has been a great deal of effort to get other countries to understand what the Non-Proliferation Act was about and what it was not about. There is a

much greater and better understanding of that piece of legislation now than was true 2 years ago.

PROBLEMS WITH EXTENDING CONTROLS

Mr. BONKER. Ambassador, You state on page 17 of your written statement that:

> We believe an attempt to extend controls in this manner would generate enormous resentment on the part of the foreign countries whose cooperation in nonproliferation is vital.

In this statement you are making reference to a provision in the Wolpe legislation, H.R. 1417, which extends our controls to foreign affiliates of U.S. corporations, noting that the extraterritorial effect would cause enormous political difficulties. I don't necessarily take issue with that statement, but I do take issue with the administration's lack of consistency, on extraterritoriality. One of the major issues in our deliberation on the Export Administration Act was the extraterritorial reach of U.S. foreign policy controls on affiliates and subsidiaries in other countries. In this case the administration strongly opposed our limitation on extraterritorial authority. So it seems to me that if extraterritoriality is appriopriate within the provisions of the Export Administration Act, it ought to also be valid in the Nuclear Non-Proliferation Act.

You may not be in a position to respond to this question, but I wanted to note this point as a matter of inconsistency with respect to administration policy.

Ambassador KENNEDY. May I just add one comment?

I would not wish to attempt to discuss the entire Export Administration Act at this time, but one thing about the nuclear activity which may be different. All nuclear commerce is conducted under the terms of Government-to-Government agreements between the United States and the trading partner. Though the commerce is private in nature, it must be conducted in accordance with negotiated agreements between the two Governments. And that makes the situation somewhat different, Mr. Chairman.

If one introduces, by legislation, a change in the nature of that relationship already negotiated between the two governments, there is serious resentment, not just the resentment that arises out of the question of extraterritoriality, but this in addition, takes the extraterritoriality question into the nature of the agreement between the two countries.

Mr. BONKER. If we were to proceed with extending those controls extraterritorially, would it greatly impede then the proliferation of nuclear technology and materials simply because other countries may not be as advanced as the United States?

Ambassador KENNEDY. Mr. Chairman, my impression is that were this to be placed in effect, the impact would essentially be upon those countries—the relationship between us and those countries who are not proliferation risks.

They are the principal trading partners to which we are referring.

Mr. BONKER. OK.

QUESTION OF REPROCESSING

Ambassador Adelman, one quick question.

On page 11 of your statement you state that the United States will not inhibit civil reprocessing and breeder development in countries with advanced nuclear programs. This whole question of reprocessing is of great interest to this particular subcommittee. What is to prevent the inclusion of such countries as the PRC and Brazil, possibly Israel and others, into that particular category?

Mr. ADELMAN. What we are talking about today is the reprocessing in advanced countries—primarily Japan, also the Euratom countries. As Ambassador Kennedy said, these are not the countries that pose the proliferation risk today, that what we have to do is work on a proliferation regime with them.

Mr. BONKER. With regard to the People's Republic of China, if the PRC is fully advanced pursuant to the new policy on technology transfers and they are a weapons-producing state, how do you control their possible reclassification into a new category which would put them into the reprocessing market?

STATUS OF NEGOTIATIONS

Mr. ADELMAN. What we are doing is working on negotiations that Ambassador Kennedy has been handling with the PRC to have an understanding on export of nuclear materials.

Mr. BONKER. Is that understanding imminent?

The administration has been engaged at least for the past 3 months in the rewrite of our export policy with respect to the PRC, and we still haven't seen anything terribly definitive. I understand that China has not agreed to sign an agreement that would control the end use application of technology that we would sell to PRC. How are you going to gain the ultimate assurances needed in the use of our nuclear technology?

Ambassador KENNEDY. Mr. Chairman, I participated in two extensive discussions with the PRC.

To repeat—I have participated, Mr. Chairman, in two lengthy discussions with representatives of the PRC concerning the possibility of nuclear cooperation between—that is in peaceful activities—with the PRC, between the United States and the PRC, purely in the peaceful area.

In both of those discussions, it has been clearly and unmistakably put forward that we are talking about cooperation within the terms of the Nuclear Non-Proliferation Act. That is to say whatever cooperation is to be undertaken, if there is to be any, will require—if there is to be any cooperation at all it will require that an agreement for cooperation must be reached between the two Governments, and such an agreement would be of course brought before the Congress for its consideration under the terms of the Atomic Energy Act and the Non-Proliferation Act.

All of the concerns and considerations of the Non-Proliferation Act and the Atomic Energy Act would therefore have to be taken into account.

QUESTION OF REPROCESSING

As to the question of reprocessing, it is to be recalled that of course China is a nuclear weapons state, and under even NPT, which China itself vigorously denounces as a treaty which it doesn't subscribe to, even under that treaty, as a nuclear weapons state its status is different from other states.

However, we have made clear that such matters as the fuel cycle technology are matters on which we are not at this juncture prepared to enter into any cooperative arrangement with them, without the most rigid and intensive controls, and we have not agreed to that at all.

Mr. BONKER. Mr. Wolpe.

Mr. WOLPE. Thank you, Mr. Chairman.

Ambassador Kennedy, you indicated that the basis for your opposition both to the legislation that is before this committee and to the amendment that we added to the Export Administration Act is your concern that such legislation would undermine the consistency, predictability, reasonableness of our policy in the eyes of other nuclear states.

Let me say with all respect that the legislation that is before the committee and the amendment that was approved on the House floor were motivated precisely because this administration's nuclear nonproliferation policy has been so inconsistent, so unpredictable, and so unreasonable. I believe that policy clearly mandates the need for further refining of nuclear nonproliferation legislation to achieve the very goals that you have announced as the basis for your opposition. Just a small point, perhaps, but I think it needs to be stated.

Ambassador Adelman cited the recent appointment of Lewis Dunn as ACDA's assistant director as evidence of the high priority this administration attaches to its nuclear proliferation policy. The administration has been in office for 3 years; I shudder to think what would have happened had this not been a high priority—how long it might have taken to make that particular appointment.

Mr. ADELMAN. I would be happy to asnwer that.

The fact is that during the recent times in ACDA, the nomination was made of an assistant director in charge of this bureau. It was held up in the Senate for an extensive period of time, and then there was a change in the directorship of ACDA. But it was—this administration made that nomination in good order.

APPROVAL OF REPROCESSING REQUESTS

Mr. WOLPE. I am pleased to hear that. My skepticism is not totally allayed, but I appreciate that observation.

According to the data that I have, the administration in 1982 and 1983 approved reprocessing requests to the following countries: Japan, 13 requests for 4,575 kilograms of plutonium; Switzerland, 5 requests for 1,036 kilograms; Sweden, 1 request for 200 kilograms; Spain, 1 request for 70 kilograms; a total of 20 requests for 5,881 kilograms.

To put the significance of that in perspective, my understanding is 10 kilograms is equivalent to one nuclear weapon.

The question I would put to you, Ambassador Kennedy, is whether that kind of record indicates that the administration is really serious about minimizing the spread of plutonium through the world economy?

CONTROLLING FLOW OF PLUTONIUM

Ambassador KENNEDY. Mr. Wolpe, I don't think it is a correct characterization that the administration seeks to control the flow of plutonium through the world economy. It seeks to control the flow of plutonium in any area where there is a potential proliferation risk. It has been very careful to assure that that is the case.

In each of the cases involved here, there has been a control maintained by the United States over any plutonium of which it in fact has any ownership or transfer rights to. Precisely how that plutonium is to be used and the conditions of its use and its protection must be agreed by the United States, and it must be accounted for to the United States.

I should add that not all of the plutonium, by any means, which is available in the world so-called economy is controlled by the United States or in any way owned by it.

Mr. WOLPE. In a portion of your testimony you assert:

> We have not and we will not approve any nuclear-slated exports which could assist a nonweapons state to develop nuclear explosives.

Essentially, that is similar to the affirmation you just made with respect to plutonium reprocessing. How, then, would you characterize the administration's support for the retransfer of U.S.-origin heavy water from Europe to Argentina? Are you trying to suggest that that approval has no implications for nuclear weapons capability or development?

IAEA SAFEGUARDS ON HEAVY WATER

Ambassador KENNEDY. It could, Mr. Wolpe. The fact is, however, that the transfer of that heavy water was made under the most stringent controls. The use of the heavy water is to be only in the reactors in Argentina, all of which are under IAEA safeguards.

The material itself is subjected to IAEA safeguards, and all of the conditions which would be required for any export under the Non-Proliferation Act were met by Argentina, and guarantees given the United States in this respect.

Mr. WOLPE. You are aware, are you not, that Argentina did not even request as large an amount of heavy water as was approved?

Ambassador KENNEDY. Yes, Germany and EURATOM, who had title to the material at that point, made the request for transfer. Presumably this involved discussion with the Argentinians about when and under what conditions it would be desired.

INTERAGENCY REVIEW

Mr. WOLPE. I make that statement because it is my understanding that the request was not even subject to normal interagency review process. That assertion was made by Chairman Palladino of the NRC.

Ambassador KENNEDY. I have discussed that with Mr. Palladino. I do not wish to challenge his testimony. Let me just state what my understanding of the facts would be. And I would be delighted if you would agree to include in the record later a full chronology of events.

This matter occurred—began over a year and a half, almost 2 years ago, when it was proposed. The Argentinians apparently, as I recall it, had had some discussions at that time either with Germany or with the United Kingdom. We were dealing with that question for some considerable time, and we put—we indeed asked whether the Nuclear Regulatory Commission had any views on the matter.

The Department of Energy, which was responsible for doing this sort of thing, requested the views of the Nuclear Regulatory Commission in February 1982. It was in March 1982 the Nuclear Regulatory Commission asked for a more complete analysis from the Department of Energy, and in particular they asked how we could be assured that the heavy water would be exclusively used in those reactors.

Well, since they are the only reactors which would use that heavy water and the Argentinians were going to give us absolute assurances, the Department of Energy apparently felt quite satisfied in this regard.

The whole question went into a kind of limbo because the Falkland Islands enterprise occurred.

If there was a failure—and I have commented in the other body that indeed in retrospect I believe there was—the failure was in our recognizing that the matter had been before the entire executive branch for 1½ years. It should have been pushed a little bit harder at that point.

I would say also that the procedures did not require for this particular kind of an export to be subject to the actual review and approval of the Nuclear Regulatory Commission. We have since, as I indicated also in my comments to the other body, in September of this year introduced a change to the regulations which would require this sort of review by the Nuclear Regulatory Commission, not on a sort of voluntary basis if you will, but as a matter of regulation.

We believe it should have been reviewed carefully, and we have corrected the regulations. We would hope that the Nuclear Regulatory Commission indeed could give us a response to the executive branch's suggestions on the changes in regulation. They have been unable to do that over the past 2 months now. We are hopeful that we can get these regulations into place requiring this, but we cannot get their comments.

We would hope they would be able to move quickly.

Mr. WOLPE. Ambrassdor Kennedy, I believe my time has expired. However, I do hope that you can provide the committee with some indication of the assurances we have received from Argentina, and state how those assurances jibe with the Argentinian refusal to disavow an interest in nuclear weapons development.

Ambassador KENNEDY. I will provide a statement for the record including those assurances.

Mr. BONKER. Ms. Snowe.

U.S. REMOVAL FROM MARKET SHARE

Ms. SNOWE. Thank you.

If the United States would totally restrict the nuclear technology to nonproliferation countries, would that discourage or encourage foreign availability by other major suppliers? In other words, if the United States would remove itself from the market, would other nations we deem to be a risk, be encouraged to provide and fill the gap, or discouraged?

Ambassador KENNEDY. Let me answer that in two different ways.

First, I would not want to suggest that our withdrawal from the marketplace would necessarily encourage others to take greater risks. I say that because we would make every effort, as we have been doing, to encourage others to join with us in continually tightening up the nonproliferation regime.

At the same time, it should be understood that there are differences of view among the major suppliers. Our job, as we see it, and as we have been conducting ourselves, is to attempt to persuade those other suppliers to join with us in an ever-tightening—ever tighter regime of nonproliferation controls. But we cannot really accomplish very much if we simply operate out of the game as it were. We need to have an opportunity to have a dialog. We have to have something to have that dialog about. And let me, if I may comment on one other aspect of your question.

We do not, as I indicated in my testimony, and as I indicated in answer to an earlier question, we do not engage in any sensitive exports of technology or materials to any country, even if that country is an NPT signatory, theoretically having full scope safeguards, if we believe that country is a genuine proliferation risk. We do not, and we will not. That should be understood.

We differentiate among those who we believe to be important proliferation risks.

Now, as to those where we do not have full scope safeguards, the law is clear. Significant exports are not permitted, and we do not allow them. What we have talked about here, our concern with the legislation before us, is that nonsensitive, nonsignificant exports, that is significant in the point of view of a proliferation risk, would be prohibited as well. And thus there would be almost no basis on which we would be able to find reason for a dialog with those countries and the basis for the persuasive efforts we think are absolutely essential.

IMPACT ON INDIA'S NUCLEAR PROGRAM

Ms. SNOWE. Well, if either bill were to pass the Congress, what influence do you think it would have for example on India's nuclear power program?

Ambassador KENNEDY. Little if any.

Ms. SNOWE. Could you elaborate?

Ambassador KENNEDY. Well, we don't have any significant nuclear commerce with India in any event, nor have we had ever since 1974. The instant case is a matter in which the question was if these reactors, which were produced, built by the United States in the first instance—by U.S. vendors, not the United States—built by U.S. vendor in the first instance, some 15 or more years ago, if

these reactors are to continue in operation, it is obviously important that they be operated safely. There is a need for replacement parts. The reactors are under safeguards. They are inspected.

The question was, could these parts—which from a proliferation standpoint are nonsensitive—could these be acquired from the United States? The President said he would consider ways in which that might be facilitated if the parts could not be obtained anywhere else. And that is the decision, that is the only decision that has thus far been taken in the matter.

Mr. BONKER. Do you think this legislation, if enacted, would have any effect on Israel and South Africa?

Ambassador KENNEDY. I see no way that it would. It would prohibit us from having any nuclear commerce with either of them, even, as I said—even if nonsensitive.

NEED TO STRENGTHEN IAEA

Ms. SNOWE. Mr. Adelman, on page 5 of your testimony, you state that there is room for further progress in strengthening IAEA.

What specific recommendations has ACDA made in this regard, in providing more safeguards under the IAEA?

Mr. ADELMAN. What we have been doing is working with the IAEA on improving their methods, looking at new technology that might be good for safeguards, improving, helping advise them on the organization of the poeple and the offices in the IAEA who deal with safeguards, the type of research that they could conduct in the safeguard area.

I was talking in my office yesterday with Mr. Leeks, who is the head of the IAEA, about many of these ideas, and we work with the staff level and higher levels of IAEA on a pretty continuous basis along these lines.

Ms. SNOWE. In earlier hearings there were some private witnesses who stated that they agreed with the basic intent of the legislation, but felt it was necessary to have better enforcement rather than changing the existing law.

I would like to have each of you comment on whether or not we need to strengthen the existing law through strengthening enforcement. I think certainly there are some problems in this area. What if any changes would you recommend in the existing law?

And finally, how can we improve the enforcement mechanism? Why don't we begin with you, Mr. Adelman?

ENFORCEMENT MECHANISMS

Mr. ADELMAN. Enforcement in this area is a kind of difficult concept, because we know that international law is different from domestic law by having—by the absence of an enforcement mechanism in the executive branch, a police force, whatever.

I think that the most important enforcement in the whole area of nonproliferation is the blemish that a country gets attached to its name, its reputation, by going nuclear or indicating that it might go nuclear. I think that over the past decade we have built up a norm, a legal norm, a political norm, a diplomatic norm, of avoiding acquiring nuclear weapons for these countries. And I

think that the stronger we can make this norm, the absolute better off we are, and the security of the world is.

So I think in terms of enforcement, the sanctions to a country that goes nuclear, has nuclear weapons, and the kind of warnings that we do on a very continuous basis to these countries, explaining the repercussions of that, is in a sense an enforcement mechanism. The more we can work with our allies to do the same, the better off we are.

Ms. SNOWE. Ambassador Kennedy.

Ambassador KENNEDY. Thank you.

First, we do not believe that there needs to be any change in the law. The law is comprehensive, it is strict. The criteria are clear. We observe those criteria.

As I indicated much earlier, we have spent a great deal of time over the past couple of years trying to get others in the world to understand what that law is about and why those criteria exist, how we enforce them.

As to enforcement, I think we do need to do more, but we need to do more in a cooperative sense with other nations. We cannot do it alone. We tried for a while on the notion that indeed we could simply by fiat say this is the way it is. It doesn't work. It must be a cooperative effort. We have been working intensively in this direction.

DUAL-USE SUPPLIER QUESTION

The dual-use supplier question that I mentioned is an example of the kind of efforts that we are putting into this. We believe a lot more of that effort is needed. We are doing it. We have been working with those who have developed the so-called trigger list, the London suppliers guidelines, working to tighten those up, expand them into new areas.

The export alert question, the approach that I mentioned, is relatively new—well, it is not new, but it is evolving. We need to make it more systematic. We know that and we are working to precisely that end.

SANCTIONS

I am delighted that Mr. Adelman referred to the question of sanctions. Indeed, his agency is even now considering the possibilities of what might be developed as a program of sanctions, what sanctions can actually be applied. And that is not an easy question. It really is not an easy question at all, because it sounds as though you just simply say this is the way it is. But again, if sanctions are to be applied, they have to be done on a cooperative basis as we have seen in other instances.

Mr. BONKER. Thank you.

Mr. Levine.

EFFECT OF STRENGTHENING PAKISTAN'S CONVENTIONAL MILITARY APPARATUS

Mr. LEVINE. Thank you, Mr. Chairman.

As I have listened to both of your testimony, gentlemen, it has appeared to me that the essential thrust of your opposition to the legislation with which we are dealing is your general view expressed differently by each of you that we need to maintain a relationship with these countries and, through maintaining this type of relationship in a variety of areas, we will be better able in fact to influence their policies toward nonproliferation objectives than we would be if we cut off the relationship that you both argue would be cut off through passage of this legislation.

In the Ambassador's testimony, one of the specific areas that you indicated was important was, for example, in strengthening Pakistan's conventional military capability, and each of you have inferred other areas as well.

What I have trouble with, and I guess the guts of why I have a great difficulty with this argument thus far as I have heard it, and why I continue to believe the legislation is important is, I don't understand why this legislation would preclude us from doing any of these things. It seems to me we could continue to strengthen Pakistan's conventional military capability, and work with these nations in a variety of nonnuclear areas, and at the same time say to them, look, we have a meaningful, significant, tough policy that has been enacted into law, and as much as we might like to be able to deal with you in these areas, we cannot do it.

Why can't we continue to have these ongoing nonnuclear relationships with these countries and more significantly advance our nonproliferation goals by the enactment of this legislation, and what specific type of security and other arrangements does it preclude that you feel we need to continue to maintain to achieve nonproliferation goals.

Ambassador KENNEDY. Mr. Levine, I understand your point. It would not preclude those other kinds of relationships. What it would preclude is any way that indeed we could have any direct influence and involvement in the very program that we are trying to control.

Let me take Pakistan, however, because we need to be very careful about that. We don't have that kind of a relationship with Pakistan. As an example, Pakistan has proceeded with certain activities which are of concern to us, and they understand that. We have told them very clearly what those activities are in respect to their nuclear fuel cycle; we do not, we will not have anything to do with the program which they are trying to pursue to build another power reactor.

We have told them if they would see fit to do something in respect to their nuclear fuel cycle, we then could be in a position to talk about the power reactor. But otherwise we won't. We are not talking about that kind of case. But take for example the question of Brazil. May I give a couple of examples of some things that have made genuine gains?

Brazil asked us if we would assist them to take some fuel which had been provided by the U.S. vendors some years ago and which failed very early in the game and had been stored ever since, low enriched material, fuel for a research reactor, if we would allow them and work with them, take that fuel and rework it to make it usable fuel in that research reactor. They wanted to do that. They

wanted to give us back the high enriched material which was being used in that reactor.

Now, if we were told that we could have no nuclear relationship with them because they did not have everything under full scope safeguard, we wouldn't be able to do that. We would have lost a nonproliferation gain.

COMPROMISE ON FULL SCOPE SAFEGUARDS

Mr. LEVINE. All of these issues are a question obviously of weighing advantages and disadvantages. I guess in my weighing what continues to give me problems with these arguments are, it seems to me in order to accomplish the objectives that you are outlining, and I think that this particular objective you outlined was positive, but in order to accomplish these objectives, we have to compromise on the whole issue of full scope safeguard and essentially stipulate that we will not press to the limit of our ability on the issue of full scope safeguard in order to work on less extensive, perhaps more modest gain areas.

Let me ask you to comment on that and one or two other related things if I might. I guess the other thing that concerns me is whether or not supplying nuclear components and material to nations that do not have full scope safeguard doesn't just seem like (a) undermining our own basic goals and objectives, impacting negatively on any future progress in this particular area, and (b) just rewarding a country, for example like Argentina, for its continuing intransigence on these issues.

I guess I am concerned about the precedents they set and whether or not we don't have to make compromises that cost us more than whatever it is that we are gaining in the equation.

Ambassador KENNEDY. Sir, I don't think we do.

May I comment?

Mr. LEVINE. Please.

Ambassador KENNEDY. First, it should be understood that in the situation where full scope safeguards are not in effect, the nature and extent of our cooperation is extremely limited. We make that very clear. We have indicated the benefits that we believe could be achieved in greater cooperation for the peaceful nuclear programs of countries if indeed they were to accede to the full scope situation.

The possibility of minor, relatively minor, and certainly nonsensitive cooperation gives us the opportunity to do that. It gives us grounds for the dialog from which we believe some result might be achieved.

Let me also comment that as to full scope safeguards, comprehensive safeguards, the President has undertaken an initiative which we are working with all potential suppliers and looking to new potential suppliers coming down the road to see if we cannot move everyone into that framework. For right now, as to the question of comprehensive safeguards, we have, along with I suppose Canada and Australia—and Australia is not a major supplier—we have by all odds the most strenuous and stringent rules. We are trying to bring others up into that framework.

Mr. BONKER. The gentleman's time has expired. If you have one additional question——

Mr. LEVINE. Thank you, Mr. Chairman, I guess my additional question would be this. Each of these areas are a question of where you draw the line.

PROLIFERATION RISK

Ambassador Kennedy, I think in response to a prior question you said that if we felt that a particular country were in fact a genuine proliferation risk that we would not be dealing with it in this area. I guess my question then is this, with regard to Argentina. Recently Adm. Castro Medero, the head of Argentina's Atomic Energy Council, specifically reiterated his government's stated option to pursue nuclear efforts development by saying, "One day we may need nuclear weapons, unlikely as it seems today, and we are not foreclosing our option."

I guess in light of those specific statements that get repeated at very high levels of the Argentinian Government, isn't Argentina a proliferation risk and where do you draw the line with regard to a country like Argentina?

Ambassador KENNEDY. Let me, if I may, correct one perhaps misimpression.

I don't think Adm. Castro Medero said nuclear weapons. He has regularly said, as has the Government of Argentina, that Argentina has no intention whatever under any circumstances, foreseeable, that they would develop a nuclear weapon.

What they have said is they also have no intention and see no need at this point for the development of nuclear explosives, that is peaceful nuclear explosions. But if—their statement is—if at some point in the future the economic and social development of Argentina would suggest that a peaceful nuclear explosion could be beneficial in some economic project, they would not foreclose that option.

Now, there is a difference. We don't distinguish and they know we don't distinguish, we have told them we don't distinguish between so-called peaceful and nonpeaceful explosions. We see no evidence, no convincing evidence, that indeed they are embarked upon an explosives program. We have indicated to them that any cooperation would have to be strictly limited. We would be in a position to talk about broader cooperation in their nuclear power program, which is an extensive one, if in fact they would undertake full scope safeguards.

Mr. LEVINE. Mr. Chairman, my time is up. May I have permission without objection to submit some additional questions for the record and seek answers in writing subsequent to the hearing, for the hearing record?

Mr. BONKER. Certainly we will be able to submit questions and hopefully Ambassador Kennedy, Mr. Adelman will respond.

Mr. LEVINE. I would also like to just conclude by complimenting you on your testimony. I guess I agree with your conclusions, but I think your answers have been very thoughtful and forthcoming, and I for one appreciate it.

Ambassador KENNEDY. Thank you.

Mr. BONKER. Mr. Bereuter.

CONTROLLED DEVELOPMENT OF PLUTONIUM

Mr. BEREUTER. Thank you, Mr. Chairman.

Gentlemen, thank you for your testimony.

I have first a question for both of you. If you could please give me a summary answer. What do you think is the best way to influence the other nuclear powers to insure controlled development of plutonium?

Mr. ADELMAN. I think that those who are involved in plutonium are well aware at this point of the dangers of the material, have taken a great deal of care themselves on the protection of the material to make sure that it is in safe hands, and to work with them to make sure that together you can restrict the availability of plutonium only to such responsible hands.

I think the point that has been made earlier needs to be reemphasized, that a few years ago the United States had a monopoly on the world supply of enrichment services, and now it is something around one-third of the world's supply comes from the United States. Our efforts have to be to make the dangers from the plutonium as minimal as possible, and we do not have a monopoly in this area.

Mr. BEREUTER. Ambassador Kennedy, would you like to offer anything further?

Ambassador KENNEDY. Only to say, sir, that to the extent that the United States is involved in any of those programs, its control over them is obviously more extensive. The fact is that in a number of those countries the number of the countries where reprocessing and the use of plutonium is going on even now, those programs are developed. They are going to do it—whether we are involved or not, it is going ahead.

The question is, how much control can we exercise, and that is going to be at least in no small measure a factor of how much we are involved.

Mr. BEREUTER. What is the very best way for influencing the nuclear powers right now to control the development of plutonium?

Ambassador KENNEDY. To be involved?

IMPACT ON JAPAN AND EURATOM

Mr. BEREUTER. Ambassador Kennedy, to what extent would Japan and the Euratom countries, which believe that advanced fuel activities are needed for their energy security, be affected by the pending resolutions?

Ambassador KENNEDY. Over time, not very much. They would continue their own programs. They would simply look to ways to cut us out of any involvement so that our own influence would diminish continuously.

DIFFERENTIAL APPROACH AMONG NATIONS

Mr. BEREUTER. Would you comment on the appropriateness of the United States using a differential approach among nations, differentiating for example between Japan and Pakistan.

Ambassador KENNEDY. Let me be sure I understand the question. The different kind of approach that we might take?

Mr. BEREUTER. Yes. Categorization of the treatment that we provide, the kind of relations that we have with other nuclear powers.

Ambassador KENNEDY. As to Japan?

Mr. BEREUTER. I don't want you to be specific on Japan. I am asking the question, should we differentiate our treatment?

Ambassador KENNEDY. Clearly we must differentiate the treatment. Indeed, just as we do, we need to, where there is a proliferation risk, we need to pursue that and restrict the nature and direction of our own involvement, which is exactly what we do.

On the other hand, where there is not a proliferation risk, we need the cooperation of those countries to control the commerce in these materials and to get their cooperation in dealing with the sensitive countries in the same ways that we do.

ABILITY TO INSURE PHYSICAL SECURITY

Mr. BEREUTER. You indicated apparently before the Senate that the administration remains committed to its efforts to work with other countries to assure the adequacy of physical security measures, especially where nuclear materials of U.S. origin are involved. I have been involved in the past in oversight activities of the domestic nuclear industry in the United States. I wonder about our own ability to insure physical security.

Can you elaborate a little bit on the kind of assistance regarding physical security which the administration might feel it could provide?

Ambassador KENNEDY. As a matter of fact, there is a program of physical security training which goes on. Sandia Laboratories are involved. These are programs which take our own experiences and translate those into meaningful programmatic content which can be then disseminated to other countries. And we have a great many countries who actually participate in this. It is also an IAEA-related program.

Mr. BEREUTER. Thank you.

My last question, Mr. Adelman.

NPT REVIEW CONFERENCE

Since ACDA is the leading agency for the United States in preparing for the 1985 Nonproliferation Treaty Review Conference, and since we have at least some expressed agitation and concern that it might all just break apart, could you outline for the subcommittee now, and perhaps supplement it if you care to in writing, the preparations that have taken place so far and the goals that the United States has in preparing for that Conference. What do we hope to pursue at that Conference?

Mr. ADELMAN. Sure.

The United States has been in touch with countries over the last several months in having the U.N. General Assembly vote a resolution in support, and preparing the way for the NPT Review Conference. When Ambassador Kennedy and I go on foreign travels, we bring up to allied governments our concern that the NPT Review Conference not split apart, as you say, but be held in a constructive

environment, and with the end goal being quite simply one of reaffirming the NPT as a triumph in arms control and an important step in halting the spread of nuclear weapons

I think it is realistic to say that there will be many attempts to disrupt the NPT regime before and during the NPT Review Conference. The kind of attempts to disrupt it that I viewed for 2 years at the United Nations——

Mr. BEREUTER. Among the participants?

Mr. ADELMAN. Among the participants, yes. And that a good deal of spadework can be done ahead of time to make them realize the costs of such shenanigans. That is being done now.

Mr. BEREUTER. Thank you.

Mr. BONKER We are pleased to have with us today, Mr. Richard Ottinger, who is the chief sponsor of the legislation before the subcommittees.

Mr. Ottinger.

ADMINISTRATION'S RELAXED NONPROLIFERATION RESTRAINTS

Mr. OTTINGER. I want to thank you, Mr. Chairman, for allowing me to participate in your committee's deliberations on these matters. Your courtesy in this regard is very much appreciated. I know time is limited.

Mr. Kennedy. Mr. Adelman, there is considerable alarm in Congress and the country at the degree to which the administration has relaxed its nonproliferation restraints in the name of being able to be more effective by sitting at the nuclear bargaining table. We are now involved in consideration of exports of enrichment and reprocessing equipment from which bomb materials can be made, with the approval of U.S. origin technology being transferred to countries that don't have safeguards, and with transfers that would occur through other countries and foreign subsidiaries of our own companies to a large degree.

I think there is, as has come out today in the various questions, a basic difference in philosophy and one which I don't think you have adequately explained: that we have to engage in commerce ourselves in these sensitive nuclear materials with unprotected countries in order to be able to be effective.

Mr. Adelman said it is like having a dialog with the U.S.S.R.—if you don't sit down at the table you cannot discuss with them. But we don't engage in commerce in bombs with Russia. It is important to sit down and discuss matters with them. But, it is kind of like saying in order to control heroin traffic throughout the world, the United States has to engage in that traffic.

I think we can be very effective, more effective in discouraging that traffic by eliminating our own activities and by exercising leadership. I think that is where the basic difference really comes down.

I am also concerned with the degree to which the administration still tries to hide from the Congress and the public information that is essential to make the decisions in this area, with respect to the transfers in 1982 and 1983, approval by the administration, of 21 of 22 pending reprocessing requests for 6,931 kilograms of plutonium. We requested information with respect to the State Depart-

ment and ACDA's inputs to the approval of those requests. We were told that we could not have them.

What are you trying to hide?

Mr. ADELMAN. Let me mention both of your points, Congressman Ottinger, because I think they are both awfully interesting.

First, I think you have hit on the central difference between your position and the position of the administration. I think it is true that what we can do is to quarantine, embargo, shut off dealings with problem areas in the nuclear proliferation area, as we can in other countries of the world, and for other reasons in the world. And it is a basic difference and a basic question whether, when a country takes up a behavior pattern that you find very objectionable, whether you stop all dealings with that country or stop dealings with that country in an area that you wish to be concerned over.

I know that being in—living in Africa for 2½ years, the question came up constantly on total embargos with South Africa. For example, on East-West relations, the question comes up with total embargos with Poland, the Soviet Union, the Eastern bloc. And people take the position that it is better to try to deal with these countries and work with these countries.

There is a basic philosophical difference, whether you quarantine them and never speak to them. There is a difference whether you want to be in a position to be so far ahead of what other suppliers are doing in the nuclear area that you lose all relevance to them. What we have been trying to do, trying the best we can, is to be ahead of other potential suppliers and ahead of our allies, but not so far ahead that we become irrelevant in the whole endeavor.

U.S. POSITION ON NONPROLIFERATION

I think if you look at it, that it is a situation—it is true that the United States takes a better position on nonproliferation around the world on issues than any other country, any other major country. And I think that is the way it should be. I think that is what you are calling for when you call for this kind of leadership.

Now if you want to change your rules so that any time there is a dual use item, for example, a computer, a vessel, that could be used for nuclear material and for nonnuclear material, that every time you did that you had to have comprehensive safeguards, demanded comprehensive safeguards when you dealt with this country, you would get in a situation where you could not agree with your allies for a general supplier's approach to comprehensive safeguards for significant items, because now you are including everything as a significant item.

We are having a difficult time trying to get a common understanding with the allies and a united front with them on the main suppliers. But if you are going to have all items that are different in degrees, impose different threats in nonproliferation considered the same, then you might as well forget the initiative on comprehensive safeguard that was written in the 1978 act, and I think very well.

ACDA'S POSITION AND ROLE

Lastly, let me just say on the Agency positions to the President that one of the most important things that we have going for us in ACDA is the obvious direct access to the President, to give him the best of our advice on nonproliferation and on arms control generally. If we shared this kind of information and differences of position that we might have with the State Department, Defense Department, Joint Chiefs, whoever, involved in the arms control process, we would very much lose our effectiveness in being the principal adviser to the President on arms control.

Mr. OTTINGER. We get that information from the Department of Energy and NRC, and to make those judgments it seems to me we have to know where the State Department is standing and the Arms Control Agency.

Let me ask one other question.

ADEQUACY OF SAFEGUARDS

NRC, in hearings before our committee, has stated that they could not certify that safeguards are adequate with respect to both handling of plutonium—and in talking with Hans Blix yesterday, he confirmed to me that IAEA does not yet have the safeguards procedures approved for this handling.

It very much concerns me that we are going to proceed to export this kind of material before safeguards that are adequate are in fact approved. And I understand that the administration is now considering approval of a Swiss request to transfer U.S.-controlled plutonium from reprocessing in France to a fuel-fabrication facility in West Germany for fabrication into light-water reactor fuel elements for use as plutonium recycled fuel in Swiss reactors.

This would be the first request for such use in substantial amounts—I understand 200 kilograms are required. This is a matter of concern since the Swiss have in the past given technology and equipment exports to Pakistan's enrichment and reprocessing facilities, and the transportation arrangements with Germany have not yet been approved by IAEA. We also understand that the administration may be seeking to have approval before any of these safeguards are in fact in place.

Ambassador KENNEDY. Yes, sir.

TRANSFER OF SENSITIVE TECHNOLOGY

May I, before commenting specifically on the Swiss question, may I go back to a couple of points that you made in your earlier questions for the record?

There are no approvals for the transfer of sensitive reprocessing or enrichment technology to be made that I am aware of. I want the record to be sure that it was clear that there has not been.

Mr. OTTINGER. The approval hasn't been given. But the consideration for approval has been very active with respect to reprocessing to Japan and enrichment to Australia. We have lost that contract.

Ambassador KENNEDY. We are not talking about the technologies that I am aware of.

There was some discussion in respect to Australia. As I understand it, those discussions were terminated. We did not go forward with that. But in any event, let me just point out that when we talk about these technologies, we are not talking about dealing with any country whose proliferation credentials are anything less than the best, and we would under no circumstances undertake a discussion of these technologies with a country which does not have full scope safeguards, does not engage in the most intensive kinds of nonproliferation activity equal indeed to our own.

CIRCUMVENTION OF THE NONPROLIFERATION TREATY

Mr. OTTINGER. I think that is ingenuous. We are actively out trying to peddle, trying to get other countries to circumvent the Nonproliferation Treaty in supplying spare parts which have been prohibited by the United States to India, a country which does not have full scope safeguards, which did explode a nuclear device, and which has announced at the end of its bilateral agreement with the United States in 1993, it feels it can use the spent fuel any way it wants. While your statement is technically perhaps correct, in point of fact what we are doing is not correct.

Ambassador KENNEDY. Mr. Ottinger, with all respect, sir, we are speaking of sensitive technologies. I reiterate, we do not, we will not discuss sensitive technologies with any country which does not have the highest nonproliferation credentials and we discuss even with those who have the highest credentials only on very rare occasions.

Let me go on if I may to the question of the Swiss.

Mr. BONKER. Ambassador Kennedy, we now have the second bell for a vote on the floor.

Ambassador KENNEDY. If you would like, I would be glad to put something in the record in response to Mr. Ottinger's question on the Swiss situation. It is not quite as bleak as it is suggested.

We will not undertake anything, first of all, without coming before the Congress and telling them what the proposition is.

Second, it will not be the first such case. There have been three previous ones over the past several years, recent years.

And third, 200 kilograms will not be required in each case. A certain amount of it is for research purposes, about half of it. In any case, all of the material will be under safeguards, all of the way, and will be handled by the Germans, the Swiss, and the French, fully under safeguards and with all of the physical security required to protect it.

Mr. OTTINGER. Mr. Chairman, I wonder if I might have the privilege also of asking some questions for the record?

Mr. BONKER. You certainly may, Mr. Ottinger.

REVISED REGULATIONS ON NUCLEAR RELATED COMMODITIES

Ambassador Kennedy, just one housekeeping question.

In 1980 the Export Administration Act regulations were revised to place various nuclear-related commodities under Commerce Department export controls. One effect of the revision was to shift radiation shielding windows from the general license category into a validated license category.

It is my understanding that the Subcommittee on Nuclear Export Controls will be meeting in the near future to review this item which is also available in France and Germany. Is there any likelihood that that particular item would be shifted back to general license versus a validated license?

Ambassador KENNEDY. It is under review, Mr. Chairman. There is some discussion of that going on. We will keep you informed as to what is in prospect and notify you in advance.

Mr. BONKER. I would be grateful. Thank you both for being here this morning and contributing to our understanding of this vital issue.

The subcommittees will stand adjourned.

[Whereupon, at 12:10 p.m., the subcommittees adjourned to reconvene at the call of the Chair.]

APPENDIX 1

I

98TH CONGRESS
1ST SESSION

H. R. 1417

To promote the nuclear nonproliferation policies of the United States.

IN THE HOUSE OF REPRESENTATIVES

FEBRUARY 10, 1983

Mr. WOLPE (for himself, Mr. BONKER, Mr. BARNES, Mr. UDALL, Mr. OTTINGER, Mr. MARKEY, Mr. LEACH of Iowa, Mr. SEIBERLING, Mr. EDGAR, Mr. FASCELL, Mr. GEJDENSON, Mrs. SCHROEDER, Mrs. BOXER, and Mr. BERMAN) introduced the following bill; which was referred to the Committee on Foreign Affairs

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A BILL

To promote the nuclear nonproliferation policies of the United States.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 SHORT TITLE

4 SECTION 1. This Act may be cited as the "Nuclear
5 Nonproliferation Policy Act of 1983".

6 FINDINGS

7 SEC. 2. The Congress finds that—
8 (1) the spread of highly enriched uranium, sepa-
9 rated plutonium, and other technologies usable in the

1 production of nuclear explosive devices poses a grave
2 threat to the security of the United States and to inter-
3 national security;
4 (2) the inadequacies of present international safe-
5 guards in preventing and detecting the clandestine
6 spread of these technologies substantially increase the
7 risk that nuclear weapons capability will spread to non-
8 nuclear-weapon states;
9 (3) development of effective international safe-
10 guards is hampered by a reluctance of nations to
11 submit to onsite inspections by the International
12 Atomic Energy Agency (IAEA), by inadequate finan-
13 cial resources of the IAEA, and by an absence of en-
14 forceable sanctions for violators of nonproliferation
15 agreements; and
16 (4) all nuclear supplier nations should more fully
17 cooperate with each other to insure the integrity of in-
18 ternational inspection, verification, and accounting
19 procedures.

20 TITLE I—AUTHORIZATIONS BY THE SECRETARY
21 OF ENERGY FOR CERTAIN ACTIVITIES OUT-
22 SIDE THE UNITED STATES

23 CONGRESSIONAL FINDING

24 SEC. 101. The Congress finds and declares that authori-
25 zations by the Secretary of Energy of transfers of nuclear

1 technology outside the United States are of vital importance
2 in controlling nuclear weapons proliferation.

3 PUBLIC NOTICE AND REPORT TO CONGRESS CONCERNING
4 ACTIVITIES AUTHORIZED

5 SEC. 102. Section 57 b. of the Atomic Energy Act of
6 1954 (42 U.S.C. 2077(b)) is amended—

7 (1) by striking out "b. It" and inserting in lieu
8 thereof "b. (1) It";

9 (2) by striking out "(1)" and "(2)" in the first sen-
10 tence and inserting in lieu thereof "(A) and "(B)", re-
11 spectively; and

12 (3) by adding at the end thereof the following new
13 paragraphs:

14 "(2) Notice of any authorization by the Secretary of
15 Energy under this subsection shall be published in the Fed-
16 eral Register, together with the written determination of the
17 Secretary that the activity authorized will not be inimical to
18 the interest of the United States. The authorization shall not
19 become effective until at least fifteen days after such publica-
20 tion.

21 "(3) Each report submitted to the Congress pursuant to
22 section 601(a) of the Nuclear Non-Proliferation Act of 1978
23 shall identify the activities subject to this subsection for
24 which the Secretary of Energy provided authorization during
25 the preceding calendar year, the person performing those ac-

1 tivities, and the country with respect to which the authoriza-
2 tion was provided. For purposes of such reports, the Secre-
3 tary of Energy shall require that persons, who engage in ac-
4 tivities requiring authorization by the Secretary under this
5 subsection and who are not required to submit an application
6 for such authorization, report to the Secretary with respect to
7 those activities.".

8 COMPLIANCE WITH FULL-SCOPE SAFEGUARDS AND OTHER
9 NONPROLIFERATION CRITERIA

10 SEC. 103. (a) Section 128 of the Atomic Energy Act of
11 1954 (42 U.S.C. 2157) is amended by adding at the end
12 thereof the following new subsection:

13 "c. (1) Except as provided in paragraph (2) of this sub-
14 section, authorizations by the Secretary of Energy under sec-
15 tion 57 b. shall be effective with respect to a nonnuclear-
16 weapon state only if the Secretary of Energy has determined
17 that such state adheres to the criterion set forth in subsection
18 a. of this section and to criteria with respect to activities so
19 authorized which are equivalent to the criteria set forth in
20 section 127.

21 "(2) If the Secretary of Energy finds that an authoriza-
22 tion should be provided under section 57 b. with respect to a
23 nonnuclear-weapon state which does not adhere to all the
24 criteria referred to in paragraph (1) of this subsection, the
25 Secretary shall publicly issue such finding and shall submit

his recommendation for the proposed authorization to the President. The President may authorize the Secretary of Energy to grant the proposed authorization in accordance with the procedures, and subject to the requirements and conditions, set forth in the third and fourth sentences of section 126 b. (2) of this Act.".

(b) The amendment made by this section shall take effect thirty days after the date of enactment of this Act.

CONDUCT RESULTING IN SUSPENSION OF AUTHORIZATIONS FROM THE SECRETARY OF ENERGY

SEC. 104. Section 129 of the Atomic Energy Act of 1954 (42 U.S.C. 2158) is amended—

(1) in the text preceding paragraph (1), by inserting ", and no authorization under section 57 b. of this Act shall be effective with respect to" immediately after "exported to"; and

(2) in the text following paragraph (2)(C), by inserting "and authorizations" immediately after "such exports".

TITLE II—HIGHLY ENRICHED URANIUM

EXPORTS OF HIGHLY ENRICHED URANIUM

SEC. 201. (a) The Atomic Energy Act of 1954 is amended by inserting the following new chapter immediately after chapter 11:

1 CHAPTER 11A. EXPORTS OF HIGHLY ENRICHED
2 URANIUM
3 "SEC. 135. STATEMENT OF UNITED STATES
4 POLICY.—The Congress finds and declares that the conti-
5 ued export and use of highly enriched uranium for civil nucle-
6 ar power poses a potentially serious threat to United States
7 security and foreign policy interests and that there is a need
8 to accelerate current United States and international efforts
9 to develop nuclear reactor fuels which are alternatives to
10 highly enriched uranium and which cannot be easily convert-
11 ed to use in a nuclear explosive device. Accordingly, it shall
12 be the policy of the United States, in cooperation with other
13 nations, to remove highly enriched uranium from interna-
14 tional commerce, to expedite development of non-weapons-
15 usable nuclear fuels, and to upgrade existing physical
16 security and safeguards arrangements for handling highly en-
17 riched uranium until it is removed from international
18 commerce.
19 "SEC. 136. EXPORTS OF HIGHLY ENRICHED URANI-
20 UM FOR REACTOR FUEL.—The Nuclear Regulatory Com-
21 mission may issue a license for the export of highly enriched
22 uranium to be used in a nuclear reactor only if, in addition to
23 other requirements of law, the Commission determines
24 that—

1 "(1) there is no alternative nuclear reactor fuel
2 available which can be used in that reactor, and that
3 reactor cannot otherwise use uranium which is en-
4 riched in the isotope 235 to a lesser percent than is the
5 proposed export;
6 "(2) the proposed recipient of that uranium has
7 provided assurances that, when an alternative nuclear
8 reactor fuel which can be used in that reactor becomes
9 available, it will use that fuel in lieu of highly enriched
10 uranium; and
11 "(3) the executive branch is taking whatever steps
12 are necessary to develop an alternative nuclear reactor
13 fuel.
14 "SEC. 137. LIMITATIONS ON QUANTITIES OF UNITED
15 STATES-ORIGIN HIGHLY ENRICHED URANIUM.—The Nu-
16 clear Regulatory Commission shall, in consultation with the
17 Secretary of State, determine a kilogram limit on the amount
18 of highly enriched uranium which has been exported from the
19 United States that will be allowed, in the form of fresh or
20 spent fuel, at any one time in each foreign country and at
21 each reactor site in each such country. The Commission shall
22 apply these limitations when considering any proposed export
23 of highly enriched uranium.
24 "SEC. 138. IMPROVING PHYSICAL SECURITY AR-
25 RANGEMENTS.—The Nuclear Regulatory Commission and

1 the executive branch shall support efforts, such as the trans-
2 port by sea verification program (the 'TRANSEAVER Pro-
3 gram'), to improve physical security arrangements for exports
4 of highly enriched uranium.

5 "SEC. 139. ALTERNATIVE NUCLEAR REACTOR
6 FUELS.—Not later than three months after the date of enact-
7 ment of this chapter, the President shall submit to the Con-
8 gress a plan, developed in consultation with the Secretary of
9 State, with respect to the development and the use in foreign
10 reactors of alternative nuclear reactor fuels. The objective of
11 the plan shall be to complete, as soon as it is technically
12 feasible to do so, the conversion to alternative nuclear reactor
13 fuels of all reactors which are operated with highly enriched
14 uranium exported from the United States. The plan shall
15 specify—

16 "(1) the amounts that will be spent by the United
17 States each fiscal year to develop alternative nuclear
18 reactor fuels;

19 "(2) the steps the United States will take to facili-
20 tate and encourage the use of alternative nuclear reac-
21 tor fuels; and

22 "(3) how long it is estimated the conversion from
23 highly enriched uranium to alternative nuclear reactor
24 fuels will take.

1 The plan shall take into account the need to carry out exist-
2 ing bilateral agreements between the United States and other
3 countries.

4 "SEC. 140. DEFINITIONS.—As used in this Act—

5 "(1) the term 'alternative nuclear reactor fuel'
6 means reactor fuel which is enriched to 20 per centum
7 or less in the isotope U-235 and which cannot be
8 easily converted for use in a nuclear explosive device;
9 and

10 "(2) the term 'highly enriched uranium' means
11 uranium enriched to greater than 20 per centum in the
12 isotope 235.".

13 (b) The table of contents of the Atomic Energy Act of
14 1954 is amended by inserting after the items relating to
15 chapter 11 the following new items:

"CHAPTER 11A. EXPORTS OF HIGHLY ENRICHED URANIUM

"Sec. 135. Statement of United States policy.
"Sec. 136. Exports of highly enriched uranium for reactor fuel.
"Sec. 137. Limitations on quantities of United States-origin highly enriched uranium.
"Sec. 138. Improving physical security arrangements.
"Sec. 139. Alternative nuclear reactor fuel.
"Sec. 140. Definitions.".

16 TITLE III—ARRANGEMENTS INVOLVING
17 REPROCESSING

18 SUBSEQUENT ARRANGEMENTS INVOLVING REPROCESSING

19 SEC. 301. Section 131 b. of the Atomic Energy Act of
20 1954 (42 U.S.C. 2160(b)) is amended—

1 (1) in paragraph (2), by inserting "and the Nucle-
2 ar Regulatory Commission" immediately after "Secre-
3 tary of State"; and
4 (2) in paragraph (3), by inserting "and the Nucle-
5 ar Regulatory Commission" immediately after "Secre-
6 tary of State".
7 PROGRAMMATIC APPROVALS FOR REPROCESSING
8 SEC. 302. Chapter 11 of the Atomic Energy Act of
9 1954 is amended by adding at the end thereof the following
10 new section:
11 "SEC. 132. PROGRAMMATIC APPROVALS FOR RE-
12 PROCESSING.—
13 "a. The United States may provide programmatic ap-
14 proval for reprocessing to a nation or group of nations only if
15 such approval is contained in a new or amended agreement
16 for cooperation—
17 "(1) which, in addition to meeting other applicable
18 requirements, provides that the cooperating party shall
19 require compliance with the criterion set forth in sec-
20 tion 128 a. of this Act with respect to its exports of
21 source material, special nuclear material, production
22 and utilization facilities, and sensitive nuclear
23 technology;
24 "(2) which provides a detailed description of the
25 activities approved;

1 "(3) which is submitted to the Congress with a
2 certification by the President that the judgments re-
3 quired by section 131 b. (2) of this Act, and the efforts
4 required by section 131 b. (3) of this Act, with respect
5 to subsequent arrangements have been made with re-
6 spect to the proposed programmatic approval for repro-
7 cessing; and
8 "(4) which has taken effect following review by
9 the Congress under section 123 d. of this Act.
10 "b. (1) As used in this section, the term 'programmatic
11 approval for reprocessing' means approval—
12 "(A) for the retransfer to a third country for re-
13 processing of special nuclear material, in quantities
14 greater than thirty-one metric tons, exported by the
15 United States or produced through the use of any nu-
16 clear material and equipment or sensitive nuclear tech-
17 nology exported by the United States;
18 "(B) for the reprocessing of any such special nu-
19 clear material in quantities greater than thirty-one
20 metric tons; or
21 "(C) for the subsequent retransfer of plutonium, in
22 quantities greater than two hundred and forty kilo-
23 grams, resulting from the reprocessing of any such spe-
24 cial nuclear material.

1 "(2) As used in this Act, the terms 'nuclear material and
2 equipment' and 'sensitive nuclear technology' have the mean-
3 ings given those terms by section 4(a) of the Nuclear Non-
4 Proliferation Act of 1978.".

5 TITLE IV—SPECIAL FUNCTIONS OF THE SECRE-
6 TARY OF DEFENSE IN NUCLEAR NONPROLIF-
7 ERATION MATTERS

8 CONSIDERATION OF UNITED STATES NATIONAL SECURITY
9 INTERESTS

10 SEC. 401. (a) It is the purpose of this section to insure
11 that the national security interests of the United States are
12 fully considered during the United States nuclear nonprolif-
13 eration evaluation process.

14 (b) Chapter 11 of the Atomic Energy Act of 1954, as
15 amended by section 302 of this Act, is further amended by
16 adding at the end thereof the following new section:

17 "SEC. 133. SPECIAL FUNCTIONS OF THE SECRETARY
18 OF DEFENSE —

19 "a. The Secretary of State and the Secretary of Energy
20 may submit to the President a proposed agreement for coop-
21 eration negotiated pursuant to section 123 of this Act only if
22 they have received from the Secretary of Defense a written
23 statement that the Secretary of Defense finds that the pro-
24 posed agreement will not be inimical to the common defense

1 and security of the United States. Any such statement shall
2 be submitted to the President with the proposed agreement.
3 "b. The Secretary of State may notify the Nuclear Reg-
4 ulatory Commission of the judgment of the executive branch
5 in accordance with section 126 a. (1) of this Act only if the
6 Secretary of State has received from the Secretary of De-
7 fense a written statement that the Secretary of Defense
8 agrees with the proposed executive branch judgment.
9 "c. (1) The Secretary of Energy may enter into a pro-
10 posed subsequent arrangement under section 131 of this Act
11 only if the Secretary of Energy has received from the Secre-
12 tary of Defense a written statement that the Secretary of
13 Defense finds that the proposed arrangement will not be in-
14 imical to the common defense and security of the United
15 States. Any such statement shall be published in the Federal
16 Register with the notice of the proposed arrangement.
17 "(2) In addition, the Secretary of Energy may enter into
18 a subsequent arrangement subject to section 131 b. (2) of this
19 Act only if the Secretary of Energy has received from the
20 Secretary of Defense a written statement that it is the judg-
21 ment of the Secretary of Defense that the proposed reproc-
22 essing or retransfer will not result in a significant increase of
23 the risk of proliferation beyond that which exists at the time
24 that approval is requested. Among all the factors in making
25 this judgment, foremost consideration will be given to wheth-

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1 er or not the reprocessing or retransfer will take place under
2 conditions that will insure timely warning to the United
3 States of any diversion well in advance of the time at which
4 the non-nuclear-weapon state could transform the diverted
5 material into a nuclear explosive device.

6 "(3) In the case of a subsequent arrangement subject to
7 paragraph (3) of section 131 b. of this Act, the Secretary of
8 Energy shall, when obtaining the view of the Secretary of
9 State, also obtain the view of the Secretary of Defense with
10 respect to what conditions satisfy the standards set forth in
11 paragraph (2) of that section.".

12 TITLE V—EXPORTS OF REPROCESSING
13 COMPONENTS AND TECHNOLOGY

14 PROHIBITION

15 SEC. 501. (a) Chapter 11 of the Atomic Energy Act of
16 1954, as amended by sections 302 and 401 of this Act, is
17 further amended by adding at the end thereof the following
18 new section:

19 "SEC. 134. PROHIBITION OF EXPORTS OF REPROC-
20 ESSING COMPONENTS AND TECHNOLOGY.—

21 "a. Notwithstanding any other provision of law, essen-
22 tial reprocessing components, sensitive reprocessing technol-
23 ogy, and other assistance which is essential to nuclear fuel
24 reprocessing, may not be exported or otherwise provided
25 under any agreement for cooperation (except an agreement

1 for cooperation pursuant to section 91 c. or 144 c. of this
2 Act) or under any authorization by the Secretary of Energy
3 under section 57 b. of this Act.
4 "b. For purposes of this section—
5 "(1) the term 'essential reprocessing component'
6 means any component part or group of component
7 parts which the President determines to be essential to
8 the operation of a complete facility for nuclear fuel re-
9 processing; and
10 "(2) the term 'sensitive reprocessing technology'
11 means any information (including information incorpo-
12 rated in a production or utilization facility or important
13 component part thereof) which is not available to the
14 public and which is important to the design, construc-
15 tion, fabrication, operation, or maintenance of a nuclear
16 fuel reprocessing facility, but the term does not include
17 Restricted Data controlled pursuant to chapter 12 of
18 this Act.".
19 (b) Section 402(b) of the Nuclear Non-Proliferation Act
20 of 1978 (42 U.S.C. 2153a(b)) is amended by striking out ",
21 nuclear fuel reprocessing," both places it appears.

1 TITLE VI—EXPORTS LICENSED BY THE
2 DEPARTMENT OF COMMERCE

3 COMPLIANCE WITH FULL-SCOPE SAFEGUARDS AND OTHER
4 NONPROLIFERATION CRITERIA

5 SEC. 601. Section 128 of the Atomic Energy Act of
6 1954 (42 U.S.C. 2157), as amended by section 103 of this
7 Act, is further amended by adding at the end thereof the
8 following new subsection:

9 "d. (1) Except as provided in paragraph (2) of this sub-
10 section, the Secretary of Commerce may not issue a validat-
11 ed license under the Export Administration Act of 1979 for
12 the export to a non-nuclear-weapon state of goods or technol-
13 ogy which are to be used in a production or utilization facili-
14 ty, or which in the judgment of the Secretary of Commerce
15 are likely to be diverted for use in such a facility, unless the
16 Secretary of Energy has determined that such state—

17 "(A) adheres to the criterion set forth in subsec-
18 tion a. of this section; and

19 "(B) adheres, with respect to all goods and tech-
20 nology exported pursuant to such a validated license
21 and used in such a facility, to criteria which are equiv-
22 alent to the criteria set forth in section 127 of this Act.

23 "(2) If the Secretary of Energy finds that a license pro-
24 hibited under paragraph (1) of this subsection should be
25 issued, the Secretary shall publicly issue his decision to that

1 effect and shall submit the license application to the Presi-
2 dent. The President may authorize issuance of the license in
3 accordance with the procedures, and subject to the require-
4 ments and conditions, set forth in the third and fourth sen-
5 tences of section 126 b. (2) of this Act.".

6 CONDUCT RESULTING IN DENIAL OF EXPORT LICENSES

7 SEC. 602. Section 129 of the Atomic Energy Act of
8 1954 (42 U.S.C. 2158), as amended by section 104 of this
9 Act, is further amended—

10 (1) in the text preceding paragraph (1), by insert-
11 ing ", no validated license under the Export Adminis-
12 tration Act of 1979 for the export of goods or technol-
13 ogy which are to be used (or which in the judgment of
14 the Secretary of Commerce are likely to be diverted
15 for use) in any production or utilization facility shall be
16 issued with respect to" immediately after "exported
17 to"; and

18 (2) in the text following paragraph (2)(C), by in-
19 serting ", licenses," immediately after "such exports".

APPENDIX 2

98TH CONGRESS
1ST SESSION

H. R. 3058

To amend the Nuclear Non-Proliferation Act of 1978 and otherwise promote the nuclear nonproliferation policies of the United States.

IN THE HOUSE OF REPRESENTATIVES

MAY 18, 1983

Mr. OTTINGER (for himself, Mr. MARKEY, Mr. UDALL, Mr. BONKER, Mr. BARNES, and Mr. WOLPE) introduced the following bill; which was referred to the Committee on Foreign Affairs

---

A BILL

To amend the Nuclear Non-Proliferation Act of 1978 and otherwise promote the nuclear nonproliferation policies of the United States.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 SHORT TITLE

4 SECTION 1. This Act may be cited as the "Nuclear Ex-
5 plosives Control Act of 1983".

6 FINDINGS

7 SEC. 2. The Congress finds and declares that—
8 (1) the spread of highly enriched uranium and sep-
9 arated plutonium, or the direct capability to manufac-

1 ture or otherwise acquire such materials, poses a grave
2 threat to the security interests of the United States and
3 to continued international progress toward world peace
4 and development;

5 (2) effective safeguards do not now exist for
6 highly enriched uranium and separated plutonium and
7 the facilities for their production and use;

8 (3) in view of declining orders for nuclear power
9 plants and a slowing in the growth of demand for elec-
10 trical energy, existing uranium resources and enrich-
11 ment capacity can meet all requirements for nuclear
12 fuel for the foreseeable future, and therefore there is no
13 economic justification to use separated plutonium for
14 electrical power generation;

15 (4) unless and until effective safeguards exist, the
16 commercial production and use of highly enriched ura-
17 nium and separated plutonium would significantly in-
18 crease the risk of nuclear weapons proliferation and
19 should be avoided;

20 (5) substitution or exchange of foreign special nu-
21 clear material for special nuclear material supplied and
22 controlled by the United States has weakened United
23 States nonproliferation policy and should not be per-
24 mitted without prior approval by the United States;

1 (6) the worldwide development of alternative
2 energy resources and associated technologies should be
3 encouraged as an essential means for achieving energy
4 independence and international security;
5 (7) in order to encourage nations to forgo the de-
6 velopment of national reprocessing and enrichment
7 facilities and the use of separated plutonium, the
8 United States should provide incentives to rely on low-
9 enriched uranium fuel and provide technical assistance
10 to increase the fuel efficiency of existing power reac-
11 tors, to resolve nuclear waste management problems,
12 and to pursue alternative energy sources that will pro-
13 vide real energy security;
14 (8) physical security arrangements need to be im-
15 proved with respect to all nuclear materials in foreign
16 commerce;
17 (9) in order for United States nonproliferation
18 policy to be effective, it is essential that all concerned
19 Federal agencies fully coordinate their actions and uti-
20 lize equivalent criteria and standards in authorizing,
21 approving, or licensing nuclear exports and in imposing
22 postexport controls; and
23 (10) the activities of United States persons direct-
24 ly or indirectly engaged in foreign nuclear commerce
25 can significantly affect United States foreign policy and

1 national security interests and should be permitted only
2 when licensed or otherwise approved by the United
3 States Government.

4 PURPOSES

5 SEC. 3. It is the purpose of this Act to—
6 (1) enhance national security by preventing the
7 dangerous spread of nuclear weapons;
8 (2) integrate and harmonize energy policies of the
9 United States with its policies to reduce the risk of
10 proliferation of nuclear weapons through the misuse of
11 nuclear energy technologies;
12 (3) develop sound energy policies which will
13 better utilize the uranium enrichment facilities of the
14 United States to promote the national security;
15 (4) improve the efficiency of nuclear reactor fuel
16 in order to conserve and extend uranium resources and
17 reduce significantly the amount of nuclear waste which
18 must be managed; and
19 (5) assist in the development of alternative energy
20 resources and technologies.

21 PROHIBITION ON THE EXPORT OF ENRICHMENT AND
22 REPROCESSING CAPABILITY

23 SEC. 4. Section 402(b) of the Nuclear Non-Proliferation
24 Act of 1978 (42 U.S.C. 2153a(b)) is amended to read as
25 follows:

1 "(b) Notwithstanding any other provision of law, no
2 major critical component of any facility for, and no sensitive
3 nuclear technology or other assistance important to, the en-
4 richment of uranium or other isotopic separation of special
5 nuclear material, nuclear fuel reprocessing, or heavy water
6 production may be exported or otherwise provided under any
7 agreement for cooperation (except an agreement for coopera-
8 tion pursuant to 91 c., 144 b., or 144 c. of the 1954 Act),
9 under any authorization by the Secretary of Energy under
10 subsection 57 b. (2) of the 1954 Act, or under any license
11 issued by the Secretary of Commerce and subject to section
12 128 d. of the 1954 Act. For purposes of this subsection, the
13 term 'major critical component' means any component part
14 or group of component parts which the President determines
15 to be important to the operation of a complete facility for the
16 enrichment of uranium or other isotopic separation of special
17 nuclear material, for nuclear fuel reprocessing, or for heavy
18 water production.".

19 REPROCESSING AND RETRANSFERS OF SEPARATED
20 PLUTONIUM

21 SEC. 5. Chapter 11 of the Atomic Energy Act of 1954
22 is amended by adding at the end thereof the following new
23 section:

24 "SEC. 132. ADDITIONAL CONDITIONS ON REPROCESS-
25 ING AND ON RETRANSFER OF SEPARATED PLUTONIUM.—

1 "a. Notwithstanding any other provision of law, the
2 Secretary of Energy may grant any approval (under section
3 131 or otherwise) under any agreement for cooperation, or
4 other agreement, understanding, or assurance, for the reproc-
5 essing, or the use or retransfer of any plutonium resulting
6 from the reprocessing, of any special nuclear material which
7 is exported by the United States or produced through the use
8 of any nuclear materials and equipment or sensitive nuclear
9 technology exported by the United States, only if the Secre-
10 tary determines that—

11 "(1) the end use of the material reprocessed or re-
12 transferred involves application for research, develop-
13 ment, or demonstration purposes in a facility or facili-
14 ties (A) located in a nuclear-weapon state or a state
15 which meets the criterion set forth in section 128 a. of
16 this Act, and (B) in operation or under construction as
17 of the date of enactment of this section;

18 "(2) there are no already existing stocks of sepa-
19 rated plutonium reasonably available for the end use
20 requested;

21 "(3) in the case of requests for reprocessing, the
22 reprocessing will take place in a nuclear-weapon state
23 or a state which meets the criterion set forth in section
24 128 a. of this Act and only in a facility in operation or

1 under construction as of the date of enactment of this
2 section; and
3 "(4) adequate physical security measures will be
4 maintained with respect to the material to be reproc-
5 essed or retransferred.
6 "b. The additional conditions contained in this section
7 shall continue in effect unless and until such time as the Con-
8 gress enacts a joint resolution declaring that the Congress
9 finds that—
10 "(1) effective international safeguards, which will
11 ensure timely detection of a possible diversion, will be
12 applied with respect to the reprocessing of special nu-
13 clear material and to separated plutonium; and
14 "(2) effective international sanctions against viola-
15 tions of nonproliferation commitments have been estab-
16 lished to deter nonnuclear-weapon states from diverting
17 special nuclear material undergoing reprocessing and
18 separated plutonium to the manufacture of nuclear ex-
19 plosive devices.".
20 EXPORT OF HIGHLY ENRICHED URANIUM
21 SEC. 6. (a)(1) The Atomic Energy Act of 1954 is
22 amended by adding the following new chapter immediately
23 after chapter 11:

1 "CHAPTER 11A. EXPORTS OF HIGHLY ENRICHED
2 URANIUM

3 "SEC. 135. EXPORTS OF HIGHLY ENRICHED URANI-
4 UM FOR REACTOR FUEL.—The Nuclear Regulatory Com-
5 mission may issue a license for the export of highly enriched
6 uranium to be used in a nuclear reactor only if, in addition to
7 other requirements of law, the Commission determines
8 that—

9 "(1) there is no alternative nuclear reactor fuel
10 available which can be used in that reactor, and that
11 reactor cannot otherwise use uranium which is en-
12 riched in the isotope 235 to a lesser percent than is the
13 proposed export;

14 "(2) the proposed recipient of that uranium has
15 provided assurances that, when an alternative nuclear
16 reactor fuel which can be used in that reactor becomes
17 available, it will use that fuel in lieu of highly enriched
18 uranium; and

19 "(3) the executive branch is making reasonable
20 progress in developing an alternative nuclear reactor
21 fuel in accordance with the plan required under section
22 6(b) of the Nuclear Explosives Control Act of 1983.

23 "SEC. 136. LIMITATIONS ON QUANTITIES OF UNITED
24 STATES-ORIGIN HIGHLY ENRICHED URANIUM.—The Nu-
25 clear Regulatory Commission shall, in consultation with the

1 Secretary of State and the Secretary of Energy, determine a
2 kilogram limit on the amount of highly enriched uranium
3 from the United States that will be allowed, in the form of
4 fresh or spent fuel, at any one time in each foreign country
5 and at each reactor site in each such country. The Commis-
6 sion shall apply these limitations when considering any pro-
7 posed export of highly enriched uranium.

8 "SEC. 137. DEFINITIONS.—As used in this Act—

9 "(1) the term 'alternative nuclear reactor fuel'
10 means reactor fuel which is enriched to 20 per centum
11 or less in the isotope U-235 and which cannot be
12 easily converted for use in a nuclear explosive device;
13 and

14 "(2) the term 'highly enriched uranium' means
15 uranium enriched to greater than 20 per centum in the
16 isotope 235.".

17 (2) The table of contents of the Atomic Energy Act of
18 1954 is amended by inserting after the items relating to
19 chapter 11 the following new items:

"CHAPTER 11A. EXPORTS OF HIGHLY ENRICHED URANIUM

"Sec. 135. Exports of Highly Enriched Uranium for Reactor Fuel.
"Sec. 136. Limitations on Quantities of United States-Origin Highly Enriched Uranium.
"Sec. 137. Definitions.".

20 (b)(1) Not later than three months after the date of en-
21 actment of this section, the President shall submit to the
22 Congress a plan, developed in consultation with the Secre-

1 tary of State and the Secretary of Energy, with respect to
2 the development and use of alternative nuclear reactor fuels.
3 The objective of the plan shall be to complete, as soon as it is
4 technically feasible to do so, the conversion to alternative
5 nuclear reactor fuels of all reactors which are operated with
6 highly enriched uranium exported from the United States.
7 The plan shall specify—
8 (A) the amounts that will be spent by the United
9 States each fiscal year to develop alternative nuclear
10 reactor fuels;
11 (B) the steps the United States will take to facili-
12 tate and encourage the use of alternative nuclear reac-
13 tor fuels; and
14 (C) how long it is estimated the conversion from
15 highly enriched uranium to alternative nuclear reactor
16 fuels will take.
17 The plan shall take into account the need to carry out exist-
18 ing bilateral agreements between the United States and other
19 countries.
20 (2) As used in this subsection, the terms "alternative
21 nuclear reactor fuel" and "highly enriched uranium" have
22 the same meanings as provided for those terms by section
23 137 of the Atomic Energy Act of 1954.

1 SUBSEQUENT ARRANGEMENTS AND SUBSTITUTIONS OR
2 EXCHANGES

3 SEC. 7. Section 131 b. of the Atomic Energy Act of
4 1954 (42 U.S.C. 2121 b.) is amended—

5 (1) by striking out "and" at the end of paragraph
6 (2);

7 (2) by striking out the period at the end of para-
8 graph (3) and inserting in lieu thereof "; and"; and

9 (3) by adding at the end thereof the following new
10 paragraph:

11 "(4) the Secretary of Energy may not enter into
12 any subsequent arrangement for the retransfer of any
13 such material to a third country for reprocessing, for
14 the reprocessing of any such material, or for the subse-
15 quent retransfer of any plutonium in quantities greater
16 than five hundred grams resulting from the reprocess-
17 ing any such material, unless the nation or group of
18 nations requesting such arrangement agrees that—

19 "(A) it will not, without the prior approval of
20 the United States, substitute or exchange any
21 special nuclear material which is not subject to
22 the requirements of this Act for any special
23 nuclear material subject to the subsequent ar-
24 rangement; and

1 "(B) if such a substitution or exchange is ap-
2 proved by the United States, the special nuclear
3 material received as a result of the substitution or
4 exchange will be subject to the same requirements
5 of this Act as the special nuclear material for
6 which it was substituted or exchanged.".

7 FUEL ASSURANCES AND ENERGY ASSISTANCE

8 SEC. 8. Title I of the Nuclear Non-Proliferation Act of
9 1978 (22 U.S.C. 3221–3224) is amended by adding at the
10 end thereof the following new section:

11 "FUEL ASSURANCES AND ENERGY ASSISTANCE

12 "SEC. 106. (a)(1) The Secretary of State, in consulta-
13 tion with the Secretary of Energy, shall enter into agree-
14 ments with any nation or group of nations under which, if
15 such nation or group of nations agrees not to obtain or use
16 any facility for nuclear fuel reprocessing or uranium enrich-
17 ment and not to seek access to or utilize any separated pluto-
18 nium or plutonium-based fuels, the United States will agree
19 to do the following, subject to all otherwise applicable re-
20 quirements of the 1954 Act:

21 "(A) Provide assured enrichment services, at or
22 below the price charged to United States Government
23 customers, to meet the low-enriched uranium reactor
24 fuel requirements for all power reactors in such nation

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1 or group of nations during the period of such
2 agreement.
3 "(B) Provide an additional discount from the price
4 charged to United States Government customers for
5 uranium enrichment to any such nation or group of na-
6 tions for the enrichment of uranium which such nation
7 or group of nations agrees to use in improved power
8 reactor fuel.
9 "(C) Authorize the export of a lifetime supply of
10 low-enriched fuel under a single export license issued
11 pursuant to sections 53 and 126 of the 1954 Act cov-
12 ering all power reactors in such nation or group of na-
13 tions, subject to the conditions that (i) actual exports
14 under such license shall not exceed in any three-year
15 period the amount of low-enriched uranium fuel neces-
16 sary to assure the continuous operation of the reactors
17 in such nation or group of nations during such period,
18 and (ii) the Nuclear Regulatory Commission shall an-
19 nually review such license to determine whether the
20 conditions of the agreement continue to be met.
21 "(D) Enter into a program of technical coopera-
22 tion and assistance aimed at (i) increasing the uranium
23 fuel efficiency of light water reactors and encouraging
24 the use of improved nuclear fuels which reduce the
25 total inventory of plutonium in spent nuclear fuel; (ii)

1 resolving problems associated with spent fuel storage
2 and disposal, in accordance with the cooperative pro-
3 gram developed under section 223 of the Nuclear
4 Waste Policy Act of 1982 (42 U.S.C. 10101); and (iii)
5 developing nonnuclear energy resources, in accordance
6 with the provisions of title V of this Act.
7 "(2) For purposes of paragraph (1)(B), 'improved power
8 reactor fuel' means low-enriched uranium reactor fuel war-
9 ranted by a commercial fuel fabricator for an average dis-
10 charge burnup of fifty thousand megawatt-days per metric
11 ton or more for pressurized water reactors or forty-five thou-
12 sand megawatt-days per metric ton or more for boiling water
13 reactors.
14 "(3) The prices to be charged under paragraphs (1)(A)
15 and (B) for enrichment services may be determined without
16 regard to the first proviso in section 161 v. of the 1954 Act,
17 and the amount of any discount provided under such para-
18 graphs shall be excluded in applying clause (iii) of that
19 proviso.
20 "(4) The results of each review by the Nuclear Regula-
21 tory Commission pursuant to paragraph (1)(C) shall be re-
22 ported promptly to the Congress.
23 "(b) The supply commitments set forth in paragraphs
24 (1)(A), (1)(B), and (1)(C) of subsection (a) may be transferred
25 to an international nuclear fuel authority (INFA) if and when

1 such an authority is established pursuant to section 104 of
2 this Act.
3 "(c) Not later than three months after the date of enact-
4 ment of this section, the Secretary of Energy shall submit to
5 the Congress a plan, developed in consultation with the Sec-
6 retary of State, the Director of the Arms Control and
7 Disarmament Agency, and the Nuclear Regulatory Commis-
8 sion, with respect to the implementation of the fuel assurance
9 and energy assistance program under this section. Such plan
10 shall specify, inter alia—
11 "(1) the countries which are or may be eligible for
12 fuel assurance and technical assistance;
13 "(2) the enrichment capacity and financial re-
14 source requirements necessary to meet United States
15 fuel assurance obligations over a fifteen-year period,
16 assuming both complete and partial acceptance of the
17 United States offer;
18 "(3) the impact of the program upon existing en-
19 richment contracts and what modifications, if any, will
20 be required in such contracts;
21 "(4) current and planned research and technical
22 assistance efforts which will be made part of the
23 program;

1 "(5) the amounts of money that will be spent by
2 the United States in each of the five fiscal succeeding
3 years to implement the program; and
4 "(6) the steps which the United States will take
5 to facilitate and encourage the negotiation and conclu-
6 sion of fuel assurance and technical assistance
7 agreements.
8 "(d) In accordance with the plan developed pursuant to
9 subsection (c) of this section, the Secretary of Energy shall
10 establish and maintain such programs as are necessary to
11 fulfill the obligations which may be incurred pursuant to
12 agreements entered into under subsection (a) of this section.
13 "(e) There are authorized to be appropriated to carry
14 out the provisions of this section not to exceed $10,000,000
15 for fiscal year 1984 and $15,000,000 for each fiscal year
16 thereafter.".
17 TECHNICAL ASSISTANCE TO NONNUCLEAR-WEAPON
18 STATES IN SPENT FUEL STORAGE AND DISPOSAL
19 SEC. 9. For purposes of carrying out section 223 of Nu-
20 clear Waste Policy Act of 1982 (42 U.S.C. 10101) there are
21 authorized to be appropriated not to exceed $8,000,000 for
22 fiscal year 1984 and $10,000,000 for each fiscal year
23 thereafter.

1 ENERGY ASSISTANCE TO DEVELOPING COUNTRIES

2 SEC. 10. Section 502(d) of the Nuclear Non-Prolifera-
3 tion Act of 1978 (22 U.S.C. 3262(d)) is amended to read as
4 follows:

5 "(d) For purposes of carrying out this section there are
6 authorized to be appropriated not to exceed $8,000,000 for
7 fiscal year 1984 and $5,000,000 for each fiscal year
8 thereafter.".

9 IMPROVED PHYSICAL SECURITY

10 SEC. 11. Title II of the Nuclear Non-Proliferation Act
11 of 1978 (22 U.S.C. 3241–3243) is amended by adding at the
12 end thereof the following new sections:

13 "IMPROVED PHYSICAL SECURITY

14 "SEC. 204. The Nuclear Regulatory Commission and
15 the executive branch shall support efforts, including expanded
16 research, development, and demonstration programs, to im-
17 prove physical security arrangements for exports of nuclear
18 materials and equipment.

19 "AUTHORIZATION FOR APPROPRIATIONS

20 "SEC. 205. There are authorized to be appropriated to
21 carry out the provisions of this title not to exceed $2,000,000
22 for fiscal year 1984 and $1,000,000 for each fiscal year
23 thereafter.".

1 ANNUAL REPORTING

2 SEC. 12. Section 601(a)(1) of the Nuclear Non-Prolif-
3 eration Act of 1978 (22 U.S.C. 3281(a)(1)) is amended—

4 (1) by striking out "and" at the end of subpara-
5 graph (D);

6 (2) by adding "and" after the semicolon at the
7 end of subparagraph (E); and

8 (3) inserting after subparagraph (E) the following
9 new subparagraph:

10 "(F) negotiating fuel assurance and technical
11 assistance agreements contemplated in section
12 106 of this Act;".

13 AUTHORIZATIONS BY THE SECRETARY OF ENERGY FOR
14 CERTAIN ACTIVITIES OUTSIDE THE UNITED STATES

15 SEC. 13. Section 57 b. of the Atomic Energy Act of
16 1954 (42 U.S.C. 2077(b)) is amended—

17 (1) by inserting "(1)" immediately after "b.";

18 (2) by striking out in the first sentence "except
19 (1)" and all that follows through "or (2) upon authori-
20 zation" and inserting in lieu thereof "unless (A) there
21 is in effect an agreement for cooperation made pursu-
22 ant to section 123 with the country in which such ac-
23 tivity will be engaged in, and (B) authorized"; and

24 (3) by adding at the end thereof the following new
25 paragraphs:

1 "(2) Notice of any authorization by the Secretary of
2 Energy under this subsection shall be published in the Feder-
3 al Register, together with the written determination of the
4 Secretary that the activity authorized will not be inimical to
5 the interest of the United States. The authorization shall not
6 become effective until at least thirty days after such
7 publication.

8 "(3) Each report submitted to the Congress pursuant to
9 section 601(a) of the Nuclear Non-Proliferation Act of 1978
10 shall identify the activities subject to this subsection for
11 which the Secretary of Energy provided authorization during
12 the preceding calendar year, the person performing those ac-
13 tivities, and the country with respect to which the authoriza-
14 tion was provided. For purposes of such reports, the Secre-
15 tary of Energy shall require that persons, who engage in ac-
16 tivities requiring authorization by the Secretary under this
17 subsection and who are not required to submit an application
18 for such authorizations, report to the Secretary with respect
19 to those activities.".

20 COMPLIANCE WITH FULL-SCOPE SAFEGUARDS AND OTHER
21 NONPROLIFERATION CRITERIA

22 SEC. 14. Section 128 of the Atomic Energy Act of
23 1954 (42 U.S.C. 2157) is amended by adding at the end
24 thereof the following new subsection:

1 "c. (1) Except as provided in paragraph (2) of this sub-
2 section, authorizations by the Secretary of Energy under sec-
3 tion 57 b. of this Act shall be effective with respect to a
4 nonnuclear-weapon state only if the Secretary of Energy has
5 determined that such state adheres to the criterion set forth
6 in subsection a. of this section and to criteria with respect to
7 activities so authorized which are equivalent to the criteria
8 set forth in section 127 of this Act.

9 "(2) If the Secretary of Energy finds that an authoriza-
10 tion should be provided under section 57 b. with respect to a
11 nonnuclear-weapon state which does not adhere to all the
12 criteria referred to in paragraph (1) of this subsection, the
13 Secretary shall publicly issue such findings and shall submit
14 his recommendation for the proposed authorization to the
15 President. The President may authorize the Secretary of
16 Energy to grant the proposed authorization in accordance
17 with the procedures, and subject to the requirements and
18 conditions, set forth in the third and fourth sentence of sec-
19 tion 126 b. (2) of the Act.".

20 SPECIAL FUNCTIONS OF THE SECRETARY OF DEFENSE IN
21 NUCLEAR NONPROLIFERATION MATTERS

22 SEC. 15. Chapter 11 of the Atomic Energy Act of
23 1954, as amended by section 5 of this Act, is further amend-
24 ed by adding at the end thereof the following new section:

1 "SEC. 133. SPECIAL FUNCTIONS OF THE SECRETARY
2 OF DEFENSE.—
3 "a. The Secretary of State and the Secretary of Energy
4 may submit to the President a proposed agreement for coop-
5 eration negotiated pursuant to section 123 of this Act only if
6 they have received from the Secretary of Defense a written
7 statement that the Secretary of Defense finds that the pro-
8 posed agreement will not be inimical to the common defense
9 and security of the United States. Any such statement shall
10 be submitted to the President with the proposed agreement.
11 "b. The Secretary of State may notify the Nuclear Reg-
12 ulatory Commission of the judgment of the executive branch
13 in accordance with section 126 a. (1) of this Act only if the
14 Secretary of State has received from the Secretary of De-
15 fense a written statement that the Secretary of Defense
16 agrees with the proposed executive branch judgment.
17 "c. (1) The Secretary of Energy may enter into a pro-
18 posed subsequent arrangement under section 131 of this Act
19 only if the Secretary of Energy has received from the Secre-
20 tary of Defense a written statement that the Secretary of
21 Defense finds that the proposed arrangement will not be in-
22 imical to the common defense and security of the United
23 States. Any such statement shall be published in the Federal
24 Register with the notice of the proposed arrangement.

1 "(2) In addition, the Secretary of Energy may enter into
2 a subsequent arrangement subject to section 131 b. (2) of this
3 Act only if the Secretary of Energy has received from the
4 Secretary of Defense a written statement that it is the judg-
5 ment of the Secretary of Defense that the proposed reproc-
6 essing or retransfer will not result in a significant increase of
7 the risk of proliferation beyond that which exists at the time
8 that approval is requested. Among all the factors in making
9 this judgment, foremost consideration will be given to wheth-
10 er or not the reprocessing or retransfer will take place under
11 conditions that will insure timely warning to the United
12 States of any diversion well in advance of the time at which
13 the nonnuclear-weapon state could transform the diverted
14 material into a nuclear explosive device.

15 "(3) In the case of a subsequent arrangement subject to
16 paragraph (3) of section 131 b. of this Act, the Secretary of
17 Energy shall, when obtaining the view of the Secretary of
18 State, also obtain the view of the Secretary of Defense with
19 respect to what conditions satisfy the standards set forth in
20 paragraph (2) of that section.".

21 EXPORTS LICENSED BY THE DEPARTMENT OF COMMERCE

22 SEC. 16. Section 128 of the Atomic Energy Act of
23 1954 (42 U.S.C. 2157), as amended by section 14 of this
24 Act, is further amended by adding at the end thereof the
25 following new subsection:

1 "d. (1) Except as provided in paragraph (2) of this sub-
2 section, the Secretary of Commerce may not issue a validat-
3 ed license under the Export Administration Act of 1979 for
4 the export to a nonnuclear-weapon state of goods or technol-
5 ogy which are to be used in a production or utilization facili-
6 ty, or which the Secretary of Commerce has determined,
7 with the concurrence of the Secretary of Defense, the Secre-
8 tary of Energy, and the Nuclear Regulatory Commission, are
9 likely to be used in the design, construction, operation, or
10 maintenance of such a facility, unless the Secretary of
11 Energy has determined that—
12 "(A) the United States has an agreement for co-
13 operation with such state;
14 "(B) such state adheres to the criterion set forth
15 in subsection a. of this section; and
16 "(C) such state adheres, with respect to all goods
17 and technology exported pursuant to such a validated
18 license and used in such a facility, to criteria which are
19 equivalent to the criteria set forth in section 127 of
20 this Act.
21 "(2) If the Secretary of Energy finds that a license pro-
22 hibited under paragraph (1) of this subsection should be
23 issued, the Secretary shall publicly issue his decision to that
24 effect and shall submit the license application to the Presi-
25 dent. The President may authorize issuance of the license in

1 accordance with the procedures, and subject to the require-
2 ments and conditions, set forth in the third and fourth sen-
3 tences of section 126 b. (2) of this Act.".

4 EXPORTS OF COMPONENTS

5 SEC. 17. Section 109 b. of the Atomic Energy Act of
6 1954 (42 U.S.C. 2139(b)) is amended by amending the
7 second sentence to read as follows: "Except as provided in
8 section 126 b. (2), no such component, substance, or item
9 which is so determined by the Commission shall be exported
10 unless the Commission issues a general or specific license for
11 its export after finding, based on a reasonable judgment of
12 the assurances provided and other information available to
13 the Federal Government, including the Commission, that the
14 nation or group of nations to which such component, sub-
15 stance, or item will be exported—

16 "(1) has an agreement for cooperation with the
17 United States;

18 "(2) adheres to the criterion set forth in section
19 128 a. of this Act; and

20 "(3) adheres, with respect to each such compo-
21 nent, substance, or item to be exported, to criteria
22 which are equivalent to the criteria set forth in section
23 127 of this Act;

24 and after determining in writing that the issuance of each
25 such general or specific license or category of licenses will

1 not be inimical to the common defense and security: *Pro-*
2 *vided*, That a specific license shall not be required for an
3 export pursuant to this section if the component, item, or
4 substance is covered by a facility license issued pursuant to
5 section 126 of this Act.".

6 LICENSING OF CERTAIN ACTIVITIES IN FOREIGN
7 COMMERCE

8 SEC. 18. (a) Chapter 11 of the Atomic Energy Act of
9 1954, as amended by sections 5 and 11 of this Act, is further
10 amended by adding at the end thereof the following new
11 section:

12 "SEC. 134. LICENSING OF CERTAIN ACTIVITIES IN
13 FOREIGN NUCLEAR COMMERCE.—

14 "a. Activities described in subsection b. of this section
15 by any person subject to the jurisdiction of the United
16 States—

17 "(1) may be engaged in only if authorized under
18 an agreement for cooperation;

19 "(2) shall be considered to be exports for purposes
20 of the procedures and requirements of section 126, sec-
21 tion 127, and section 128, except that any such activi-
22 ties relating to transfers or retransfers of components,
23 items, and substances shall be considered to be exports
24 for purposes of the procedures and requirements of sec-
25 tion 109 b.: and

1 "(3) shall require a license from the Nuclear Reg-
2 ulatory Commission.
3 "b. The requirements of subsection a. apply with re-
4 spect to any transfer or retransfer, including any activity
5 which directly or indirectly assists in any way the transfer or
6 retransfer, outside of the United States, of any source or spe-
7 cial nuclear material (including transfers or retransfers of title
8 to any such material), any production or utilization facility or
9 any technology pertaining to any such facility, any sensitive
10 nuclear technology, or any component, item, or substance de-
11 termined to have significance for nuclear explosive purposes
12 pursuant to section 109 b.".
13 (b) Section 234 a. of the Atomic Energy Act of 1954 is
14 amended by striking out "or 109" and inserting in lieu there-
15 of "109, or 134".
16 CONDUCT RESULTING IN TERMINATION OF NUCLEAR
17 EXPORTS
18 SEC. 19. Section 129 of the Atomic Energy Act of
19 1954 (42 U.S.C. 2158) is amended—
20 (1) by inserting immediately after "exported to"
21 in the text preceding paragraph (1) ", no validated li-
22 cense under the Export Administration Act of 1979 for
23 the export of goods or technology which are to be used
24 in (or which in the judgment of the Secretary of Com-
25 merce, with the concurrence of the Secretary of De-

1 fense, the Secretary of Energy, and the Nuclear Regu-
2 latory Commission, are likely to be used in the design,
3 construction, operation, or maintenance of) any produc-
4 tion or utilization facility shall be issued with respect
5 to, and no authorization under section 57 b. of this Act
6 shall be effective with respect to";
7 (2) by inserting immediately after "such exports"
8 in the text following paragraph (2)(C) ", licenses, and
9 authorizations";
10 (3) in the proviso in the text following paragraph
11 (2)(C)—
12 (A) by striking out "shall not become effec-
13 tive" and inserting in lieu thereof "shall become
14 effective only"; and
15 (B) by striking out "does not favor" and in-
16 serting in lieu thereof "does favor"; and
17 (C) by inserting immediately before the last sen-
18 tence the following: "In the consideration of a concur-
19 rent resolution under this section, the amendment al-
20 lowed by section 130 d. of this Act is an amendment
21 inserting the word 'does' in lieu of the phrase 'does
22 not' if the resolution under consideration is a concur-
23 rent resolution of disapproval.".

APPENDIX 3

Congressional Correspondence With the Department of State Concerning Koeburg Nuclear Reactor Services Contracts in South Africa

HOWARD WOLPE
MICHIGAN
3RD DISTRICT

COMMITTEE ON
FOREIGN AFFAIRS
CHAIRMAN,
SUBCOMMITTEE ON AFRICA
INTERNATIONAL ECONOMIC POLICY
AND TRADE
COMMITTEE ON
SCIENCE AND TECHNOLOGY
SUBCOMMITTEES:
ENERGY DEVELOPMENT AND
APPLICATIONS
ENERGY RESEARCH AND
PRODUCTION
VICE CHAIRMAN,
ENVIRONMENTAL STUDY CONFERENCE
STEERING COMMITTEE,
NORTHEAST-MIDWEST COALITION

Congress of the United States
House of Representatives
Washington, D.C. 20515

PLEASE REPLY TO:
☐ 1118 LONGWORTH HOUSE OFFICE BUILDING
WASHINGTON, D.C. 20515
(202) 225-3611

☐ 142 N. KALAMAZOO MALL
KALAMAZOO, MICHIGAN 49007
(616) 385-0039

☐ 33 CAPITAL AVENUE N.E.
BATTLE CREEK, MICHIGAN 49014
(616) 962-6911 EXT. 6212
NIGHT 962-3401

WATTS NUMBER
1-800-632-3409

September 19, 1983

Dear Colleague:

Attached please find a letter I'm sending to Lawrence S. Eagleburger, Under Secretary of State for Political Affairs, expressing my extreme dismay over the State Department's decision to support the licensing of an American company to service the Koeberg nuclear reactor in South Africa.

The letter outlines the major reasons why such support for American nuclear collaboration with South Africa is not in the best interest of the United States.

Acting with unusually swift dispatch the State Department has already sent its advisory opinion to the Department of Energy indicating that there are no objections to the granting of a license.

I feel it is extremely important that concerned members of Congress indicate their disapproval of this possible further nuclear cooperation with the white minority government of South Africa. South Africa has refused to sign the Non-Proliferation Treaty and Pretoria's nuclear program poses a very serious threat to the non-proliferation efforts of the United States and to the security of the region and the world.

It is also equally important that the United States avoid being perceived as increasing its support for South Africa's nuclear program while the white-minority government continues to deny any hope for allowing its vast black majority to participate fully in the political and economic life of South Africa.

If you would like to add your support to this letter please contact Salih of my Africa subcommittee staff at X67807 before Tuesday afternoon, September 20th. I'm sorry for the short notice but we must act quickly if we are to have any impact on this important matter.

Sincerely yours,

Howard Wolpe
Chairman, Subcommittee on Africa

33-516 O—84——14

COMMITTEE ON
FOREIGN AFFAIRS
CHAIRMAN,
SUBCOMMITTEE ON AFRICA
INTERNATIONAL ECONOMIC POLICY
AND TRADE
COMMITTEE ON
SCIENCE AND TECHNOLOGY
SUBCOMMITTEES:
ENERGY DEVELOPMENT AND
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VICE CHAIRMAN,
ENVIRONMENTAL STUDY CONFERENCE
STEERING COMMITTEE,
NORTHEAST-MIDWEST COALITION

HOWARD WOLPE
3RD DISTRICT, MICHIGAN

Congress of the United States
House of Representatives
Washington, D.C. 20515

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BATTLE CREEK, MICHIGAN 49014
(616) 962-6911 EXT. 8212
NIGHT 962-3401
TOLL FREE NUMBER
1-800-632-7906

September 20, 1983

Honorable Lawrence S. Eagleburger
Under Secretary of State for Political Affairs
U.S. Department of State
Washington, D.C. 20520

Dear Mr. Eagleburger:

We write to express our deep dismay about the recent decision taken by the State Department regarding license approval for American companies bidding for a management services contract to operate South Africa's Koeberg nuclear power reactors.

As you are aware, there is great sensitivity in the Congress surrounding the whole question of America's nuclear relations abroad and especially with those countries that have not yet acceded to the Nuclear Non-Proliferation Treaty such as South Africa. Many of us in the Congress are seriously disturbed by the pattern of nuclear cooperation which has emerged between our country and South Africa over the past two years and the general relaxation of our official attitude toward such cooperation under the policy of "constructive engagement." The earlier exchange of nuclear technicians, the sale of dual-use exports that can be used to advance nuclear proficiency, and the recent suggestion by the Administration to export helium three for research purposes--all point to increasing collaboration in the nuclear field but without the promised movement of the South Africans toward a Namibia settlement or South Africa's movement toward signing the NPT.

Further this increased U.S.-South Africa nuclear collaboration works deliberately against the intent of recently introduced and/or pending legislation that seeks to restrict American nuclear relations with countries that have refused to sign the NPT and that have not agreed to fullscope IAEA safeguards. South Africa has nuclear enrichment facilities that it refuses to place under safeguards.

We believe that in this particular case there is an immediate proliferation risk implicit in the operations services contract for the Koeberg reactors though the reactors themselves do come under IAEA safeguards. We also realize that South Africa's nuclear energy parastatal, ESCOM, has opened the bidding worldwide and that other countries are competitively vying to obtain this potentially lucrative, ten-year, arrangement.

We must ask what short and long-term implications such a contract would have for American foreign policy and national interests.

It is our view that agreement to issue the license to a U.S. company to manage the Koeberg reactors will only encourage South Africa's nuclear development in the face of our official policy to work to restrict nuclear proliferation. It also will send a powerful political message to African nations and all others opposed to apartheid that once again the U.S. is doing business as usual. In the eyes of many, such an accommodation will be further proof that the U.S. is implicated in South Africa's military and economic aggression in the region as well as in the intensification of internal oppression against its black majority who live under the apartheid system.

Mr. Secretary, in view of the pending legislation concerning restrictions governing nuclear relations with South Africa and other nations developing a nuclear capacity, we are deeply disturbed by our government's support of this transaction.

We look forward to hearing from you about this very serious matter at your earliest convenience.

Sincerely,

HONORABLE HOWARD WOLPE

HONORABLE MAJOR OWENS

HONORABLE WILLIAM H. GRAY, III.

HONORABLE RONALD DELLUMS

HONORABLE WALTER E. FAUNTROY

HONORABLE GEO. CROCKETT

HONORABLE BARNEY FRANK

HONORABLE JULIAN DIXON

HONORABLE MICKEY LELAND

HONORABLE HOWARD BERMAN

HONORABLE TOM FOGLIETTA

HONORABLE MORRIS UDALL

HONORABLE EDWARD FEIGHAN

HONORABLE EDWARD MARKEY

HONORABLE MIKE BARNES

HONORABLE PARREN J. MITCHELL

HONORABLE KATIE HALL

HONORABLE THOMAS J. DOWNEY

HONORABLE WILLIAM CLAY

HONORABLE DON EDWARDS

HONORABLE LOUIS STOKES

HONORABLE CHARLES B. RANGEL

HONORABLE DON BONKER

HONORABLE ROBERT MRAZEK

HONORABLE TED WEISS

HONORABLE STEPHEN J. SOLARZ

HONORABLE BERKLEY BEDELL

HONORABLE LEON PANETTA

COMMITTEE ON
FOREIGN AFFAIRS

CHAIRMAN
SUBCOMMITTEE ON AFRICA
INTERNATIONAL ECONOMIC POLICY
AND TRADE

COMMITTEE ON THE BUDGET

CHAIRMAN
ENVIRONMENTAL AND ENERGY
STUDY CONFERENCE
VICE CHAIRMAN
NORTHEAST-MIDWEST COALITION

HOWARD WOLPE
3RD DISTRICT, MICHIGAN

Congress of the United States
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(616) 962-8511 EXT. 8212

318 N. CAPITOL STREET
LANSING, MICHIGAN 48933
(517) 377-1844

October 17, 1983

Dear Colleague:

Attached for your information is a response from Under Secretary of State Eagleburger regarding our letter of September 20 about the Koeburg Nuclear Reactor Services contracts in South Africa. The Department of State has concurred with the Department of Energy's intent to approve U.S. corporate bidders on these contracts and thereby to expand the scope of American nuclear cooperation with South Africa.

I appreciate your continuing interest in this very important matter.

Sincerely,

Howard Wolpe
Chairman
Subcommittee on Africa

THIS STATIONERY PRINTED ON PAPER MADE WITH RECYCLED FIBERS

United States Department of State

Under Secretary of State
for Political Affairs

Washington, D.C. 20520

October 6, 1983

Dear Mr. Chairman:

I am responding to your letter of September 20, 1983 cosigned by 27 other Congressmen, regarding your concern over approval of requests by American companies to provide consultative and technical services for South Africa's Koeberg Nuclear Power Plant.

The Department is keenly aware of the great sensitivity in the Congress regarding the question of American nuclear cooperation with South Africa. The Atomic Energy Act applies stringent and detailed export requirements which preclude any but the most peripheral kinds of assistance to the South African nuclear program. Nonetheless, the very narrow range of non-sensitive forms of nuclear cooperation with South Africa that might still be undertaken by U.S. firms, such as exports of nuclear related technical services and dual-use items, are very carefully reviewed from both a non-proliferation and foreign policy perspective. Extremely few exports directly connected with South Africa's nuclear program have actually been approved. Such approvals have been limited to exports for use in safeguarded facilities and have only included items or services which are not significant, either in terms of proliferation risk or in importance to the South African nuclear program.

The exports to South Africa that have been approved have met all the requirements of U.S. law and regulations. While we are mindful of recently introduced and/or pending legislation which would restrict American nuclear relations with South Africa, such proposals do not yet constitute U.S. law. We presented detailed arguments against similar legislation last year, pointing out that such laws, if enacted, would undermine the position and influence of the United States in international nuclear affairs and thereby seriously hinder our non-proliferation efforts.

The Honorable
Howard Wolpe,
Chairman,
Subcommittee on Africa,
House of Representatives.

You argue that in this particular case there is an immediate proliferation risk implicit in the operations services for the Koeberg reactors. However, we have been unable to discern any such risks in our long and careful review of these requests. You have also cited two important facts noted in our review: 1) the Koeberg Nuclear Power Plant is under International Atomic Energy Agency (IAEA) safeguards and 2) the services to be provided are readily available from non-U.S. suppliers. We also found that the services to be provided include no classified information or sensitive technology. Further, selection of non-U.S. companies would not only represent a loss to the U.S. nuclear industry, but also reduce U.S. access to and influence on the South African nuclear power program. Finally, denial of these requests to provide services would damage prospects for continuation of the U.S.-South Africa dialogue on nuclear non-proliferation issues.

Approval of these services contracts does not diminish in any way the Administration's commitment to achieving movement away from apartheid within South Africa, and an easing of tensions between South Africa and its neighbors. This commitment was explained in some detail before your Africa Subcommittee of the House Foreign Affairs Committee two weeks ago (on September 14th) by Deputy Assistant Secretary for African Affairs Frank Wisner. I do not believe an operating services and maintenance contract for a civil electricity generating power plant could be credibly portrayed as "further proof that the U.S. is implicated in South Africa's military and economic aggression in the region as well as in the intensification of internal oppression against its black majority." On the contrary, approval of U.S. companies to provide these limited services, helping to ensure the safe operation of IAEA safeguarded power plants which serve all of South Africa's people, is fully compatible with our overall objectives.

I appreciate your sharing with us your thoughts and those of your colleagues on this important matter. We value your views, and would welcome an opportunity to answer any further questions you may have on this subject.

Sincerely,

Lawrence S. Eagleburger

APPENDIX 4

LETTER FROM MEMBERS OF CONGRESS TO PRESIDENT REAGAN CONCERNING NUCLEAR WEAPONS PROLIFERATION

May 18, 1983

The Honorable Ronald Reagan
President of the United States
The White House
Washington, DC 20500

Dear Mr. President:

We are profoundly concerned over your Administration's relaxation of efforts to curb the spread of nuclear weapons. The proliferation of these weapons poses a grave danger, rivaling that of the arms race between the superpowers. As the number of nations possessing nuclear weapons grows, so does the likelihood that nuclear weapons will be used.

Yet, actions by your Administration to prevent proliferation have been inconsistent and all too often motivated by undue concern for promoting nuclear-export sales. In some instances, the effect of your policies has served to facilitate, rather than inhibit, the spread of technology, equipment and nuclear-explosive materials that can be applied to making nuclear weapons.

Pressure and criticism from Congress--from both Republicans and Democrats--finally resulted in your Administration beginning to recognize the need for stronger anti-proliferation controls. The effectiveness of even these belated initiatives has been woefully compromised, however, by your earlier policies and actions that undermined the bipartisan approach to non-proliferation developed during the Ford and Carter Administrations.

We, therefore, call for restoration of the bipartisan spirit that always has characterized efforts to combat nuclear-weapons proliferation, and we offer to work closely with you in this spirit. We seek a return to forcefulness and consistency in U.S. non-proliferation policy. We would hope, as in the past, that Republicans and Democrats will join in this endeavor. We are committed to five principles that must guide all U.S. non-proliferation efforts:

First, halting the spread of nuclear weapons must become a principal goal of U.S. foreign policy. Attaining this goal requires an emphatic,

public commitment by the President to non-proliferation and active Presidential involvement in the formulation and implementation of a consistent U.S. non-proliferation policy.

Second, the spread of nuclear-explosive materials--separated plutonium and highly enriched uranium--and of the facilities that produce these weapons materials, constitutes the most fundamental threat to controlling nuclear proliferation and to protecting long-term U.S. security interests. Consequently, the United States must redouble its efforts to strengthen international restraints on the transfer of these materials and on the technology for producing them. The United States must work to reduce the demand for, and otherwise discourage the use of, separated plutonium and highly enriched uranium as civilian fuels by helping to ensure economical and secure supplies of alternative fuels that are not usable in weapons. To set a meaningful world example, the United States should defer its domestic use of separated plutonium and highly enriched uranium in its commercial power program. This is possible since there is no need to use these dangerous materials in this century.

Third, the cooperation of other nuclear-supplier nations is essential to controlling the spread of nuclear weapons. A major objective of United States diplomacy must be gaining agreement of these nations to:

(A) intensify export controls over commodities that can be applied directly to development of nuclear weapons in recipient nations and

(B) suspend all nuclear exports to any nation refusing to allow International Atomic Energy Agency inspections of all its nuclear activities, in order to verify that it is not diverting materials to nuclear-explosive purposes.

To strengthen these diplomatic initiatives, the United States must exert leadership by scrupulously adhering to these principles in the conduct of its own nuclear export activities.

Fourth, the United States must work to strengthen the capabilities of the International Atomic Energy Agency by supporting greater access and authority for the agency in conducting safeguard inspections; increased numbers and improved training to IAEA inspectors; development and deployment of upgraded safeguards technology; and greater disclosure of inspection data.

Fifth, in keeping with its obligations under the Treaty on the Non-Proliferation of Nuclear Weapons, and to otherwise strengthen its credibility in persuading other nations to forego development of nuclear arms, the United States must actively pursue efforts to halt the nuclear arms race with the Soviet Union.

As it now stands, your Administration's most troublesome departure from past bipartisan policy is its active promotion of plutonium, a nuclear explosive material, as a civilian nuclear fuel. By strongly encouraging early commercial development of reprocessing plants and breeder reactors at home and abroad, your Administration is paving the way for an industrial process that will produce by the ton materials that can be used by the pound to make atomic bombs. Your Administration is opening the door for exports of the very technologies and materials that can be turned into weapons of mass destruction and used against us.

Even though international commerce in these nuclear-explosive materials cannot be adequately safeguarded by the IAEA; even though many studies now show the use of plutonium fuels as uneconomic; and even though an excess supply of uranium, unsuitable for use in weapons, gluts world markets thus making use of plutonium as a reactor fuel unnecessary and unjustifiable for many decades, if ever--your Administration is promoting the breeder and reprocessing at home and abroad and has sought to end the long-standing bipartisan policy of never exporting reprocessing technology. In particular, it is of grave concern that your Administration intends to grant Japan long-term approval to extract plutonium from used U.S.-origin reactor fuel at will. Your Administration is also prepared to offer these major nuclear trade concessions without obtaining any meaningful strengthening of international non-proliferation controls.

Your Administration has taken a similarly dangerous stance with regard to the other nuclear weapons material, highly enriched uranium. Your Administration has abandoned the decades-old embargo on the export of the technology for manufacturing this material. Your Administration also has slashed funding for programs to develop a non-weapons usable substitute fuel that could replace highly enriched uranium in research reactors around the world.

Since passage of the Nuclear Non-Proliferation Act in 1978 by an overwhelming bipartisan majority, a key element of U.S. policy has been the suspension of nuclear exports to nations not possessing nuclear weapons that refuse to permit IAEA inspections of all of their nuclear installations ("full-scope safeguards"). Yet, during its first two years, your

Administration repeatedly circumvented this restriction. First, it encouraged other supplier nations to step in and provide nuclear fuel embargoed under U.S. law to three countries not accepting the required full-scope safeguards--India, South Africa, and Brazil. Second, your Administration has offered, or indicated a willingness to offer, other nuclear technology, not explicitly embargoed by law, to South Africa and India. In addition, your Administration has allowed sensitive nuclear technology to pass through an intermediary nation to an additional nation that refuses comprehensive IAEA inspections--Argentina. Only because of staunch Congressional opposition is the Executive Branch reconsidering this latter policy and withholding certain exports.

In not one of these instances, did your Administration obtain the slightest strengthening of non-proliferation controls in the recipient nation in return for relaxation of U.S. export restrictions. Indeed, since each of the recipient nations involved has developed or is developing the capability to produce nuclear-weapons materials in facilities not under international inspections, this course of action not only undermines the Nuclear Non-Proliferation Act, but also permits these countries to pursue this most dangerous activity without penalty.

From the outset, your Administration also sought to undermine a second key U.S. non-proliferation law, the Glenn-Symington restrictions in the 1976 Foreign Assistance Act. These restrictions prohibit U.S. military and economic aid to nations not possessing nuclear weapons that import nuclear technology capable of producing nuclear-weapons material. Only strong Congressional opposition prevented the virtual repeal of these restrictions originally sought by your Administration in 1981.

We now see all too plainly the unfortunate result of two years of neglect and weakening of U.S. non-proliferation policy by your Administration: the undermining of the legally required U.S. initiative to persuade other nuclear-supplier nations to adopt our tough, full-scope safeguards export treatment.

We reject these dangerous and ill-advised deviations from the bipartisan consensus established by your predecessors and in statute. We, therefore, are supporting legislation being introduced today that would remedy many of our concerns. Under this bill, for example, all nuclear exports to nations that have not accepted full international inspections would be prohibited; exports of technology and equipment directly applicable to producing nuclear-weapons materials would be banned; approvals of the reprocessing of plutonium from U.S.-origin fuel for

existing research, development and demonstration activities would be severely limited and approvals for new commercial activities would not be permitted until Congress determines adequate international safeguards and sanctions are in place; and new incentives for nations to forego plutonium would be provided by offering them U.S. uranium enrichment services at a substantial discount to produce assured supplies of non-weapons usable, low-enriched uranium fuel. It is particularly fitting that U.S. facilities that originally had been used to create nuclear bombs would now be used to help curb the spread of nuclear explosive plutonium.

As important as this new legislation is, we cannot, however, legislate what is needed most in this field from the Executive Branch: leadership. We cannot legislate the initiative and vigor so essential to U.S. nuclear diplomacy; we cannot legislate the assertiveness and constancy necessary to enforce the letter (and the spirit) of U.S. non-proliferation laws; and we cannot legislate the sense of urgency and concern needed to make non-proliferation a major priority in your Administration's conduct of U.S. foreign policy.

Today, the deepest aspiration of all Americans is to reduce the horrifying dangers of nuclear conflict. Our citizens, who already fear that your Administration has turned its back on serious nuclear arms control negotiations, are coming to recognize that your Administration also has turned away from what always has been a resolute bipartisan commitment to halt the spread of these arms to additional nations.

You have stated you will address non-proliferation controls with other Western leaders at the Williamsburg Summit. We agree that their cooperation is essential to strengthen the international non-proliferation regime and particularly, to tighten the rules of international nuclear commerce. But a strong and cohesive policy among the Western nations will only be brought about by resolute U.S. leadership, by setting a good U.S. example, and by a non-proliferation initiative supported in deed as well as word.

We urge you in the strongest terms to give heed to the yearnings of the American people and to devote yourself to reestablishing our nation's leadership in this vitally important area. We urge you to support the legislation being introduced today and the sound policy it reflects.

Rep. Richard L. Ottinger — Sen. Alan Cranston — Sen. Gary Hart

Rep. Edward J. Markey — Rep. Morris K. Udall — Rep. Don Bonker

Rep. Michael D. Barnes — Rep. Howard Wolpe — Walter F. Mondale

APPENDIX 5

SECTION-BY-SECTION ANALYSIS OF H.R. 3058—NUCLEAR EXPLOSIVES CONTROL ACT OF 1983

Section 1

SEC. 1 contains the title of the Act, the "Nuclear Explosives Control Act of 1983."

Section 2

SEC. 2 sets forth Congressional findings. Findings (1) and (2) are that the spread of plutonium and highly enriched uranium poses grave risks and that effective safeguards do not now exist for these materials and their associated technologies. Finding (3) is that there is no economic justification for utilizing separated plutonium for electric power generation. Finding (4) is that the commerical use of highly enriched uranium and separated plutonium; and the technologies to produce them, should be avoided unless and until effective safeguards exist. Finding (5) notes that substitution or exchange of foreign nuclear fuel for fue supplied and controlled by the United States has weakened U.S. nonproliferation policy and should not be permitted without prior U.S. approval. Finding (6) expresses the United States' commitment to encouraging development of alternative energy

resources and technologies. Finding (7) notes the United States' readiness to provide nuclear fuel assurances and technical assistance in order to encourage nations to forego the development of national reprocessing and enrichment facilities and the use of separated plutonium. Finding (8) states the need to improve physical security arrangements. Finding (9) reflects the Bill's provisions designed to ensure consistent and coordinated action among federal agencies. Finding (10) expresses the need to control the activities of foreign affiliates of U.S. firms.

Section 3

SEC. 3 states the purposes of the Act. These are to: (1) enhance national security by preventing the spread of nuclear weapons; (2) integrate and harmonize energy and nonproliferation policy; (3) better U.S. utilize uranium enrichment facilities; (4) improve the efficiency of reactor fuel use; and (5) assist in the development of alternative energy resources and technologies.

Section 4

The Administration has fundamentally broken with the nonproliferation policies of the Ford and Carter Administrations by eliminating the ban on domestic reprocessing of plutonium from commerical spent fuel, and promoting reprocessing, plutonium use, and breeder development at home and abroad. At the same time, and

contrary to the Ford and Carter policies, it has explored the possibility of exporting sensitive nuclear technologies, such as reprocessing and enrichment plants. Indeed, within the last two years, the Administration decided in principle to permit the transfer of reprocessing technology to Japan and Euratom countries and enrichment technology to Australia, while it has negotiated with Mexico concerning the possibility of U.S. exports of both enrichment and reprocessing technology as an inducement for Mexico to buy power reactors from the United States.

The Administration's policy toward exports of sensitive nuclear technology undermines U.S. nonproliferation policy for a number of reasons.

First, current U.S. law prohibits, with few exceptions, nuclear exports to any country that transfers reprocessing technology to a non-nuclear weapon state. If the United States exports such technology, it will be engaged in precisely the trade that we now seek to stop our nuclear trading partners from engaging in.

Second, the policy is dangerous, given the inadequacy of international safeguards over plutonium and highly-enriched uranium (HEU) -- products of these sensitive technologies that are directly weapons-usable.

Third, there is no economic justification for using plutonium

rather than uranium to fuel nuclear power reactors.

Fourth, the export of sensitive nuclear technologies presents precisely the wrong example to other countries.

Our past restraint in not exporting reprocessing and enrichment technologies has brought similar restraint on the part of the nuclear supplier countries, such as the commitments of West Germany and France not to engage in further exports of these technologies. Abandonment of restraint on our part would inevitably lead to abandonment of restraint on their part, and would invite sensitive exports by such emerging or potential suppliers as Japan, India, Argentine and South Africa. It is thus necessary to state as strongly-as possible that the United States will not support nor engage in the export of technologies that have the potential for direct application for nuclear explosive purposes.

SEC. 4 provides such an unambiguous example by banning the export from the U.S. of enrichment, reprocessing and heavy water plants, as well as sensitive nuclear technology and other assistance important to the design, construction or operation of such plants.

Section 5

The Administration has adopted a policy condoning the use of plutonium, a nuclear-explosive material, as a civilian fuel. Thus, for example, the Department of Energy (DOE) has authorized Japan to begin full-capacity separation of plutonium from U.S-supplied reactor fuel in the pilot-scale Tokai-Mura reprocessing plant. The United States and Japan are now negotiating an agreement that would provide for the long-term, advance approval (so-called programmatic approval) of the reprocessing within Japan, of U.S. supplied nuclear fuel. Further, the Administration has announced its intention to grant such programmatic approvals to other countries for the reprocessing of U.S.-controlled nuclear fuel and the use of extracted plutonium. While it may be appropriate to permit limited research, development and demonstration projects involving plutonium-use to go forward where prior commitments already have been made to these projects, and where the proliferation risk can be narrowly limited, it is essential not to approve premature and unnecessary commitments to a full-scale plutonium economy. Indeed, it is vitally important to signal that there is no current justification for, and grave risk in, commericial applications of plutonium-based fuels.

SEC. 5 provides that the Secretary of Energy may only approve subsequent arrangements for reprocessing of U.S.-controlled nuclear fuel and for retransfer and use of separated plutonium if the following tests are met:

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1. The end use must be for research, development or demonstration (RD&D) purposes;

2. The RD&D must be in a facility or facilities in a nuclear weapons state or in a nation with full-scope safeguards and in operation or under construction as of the date of enactment of the Act;

3. There are no already existing stocks of separated plutonium reasonably available for their requested end use;

4. Any approved reprocessing would take place in a existing facility in a weapons state or in a nation with full-scope safeguards; and

5. Adequate physical security must be maintained. These conditions can be lifted only by a joint resolution of Congress declaring that effective international safeguards and effective sanctions exist.

Section 6

Highly-enriched uranium is used chiefly for fueling nuclear research reactors. It is also capable of providing the explosive for a nuclear weapons. The United States, China, the Soviet Union, Great Britian and France all have detonated nuclear bombs

made with HEU. In the 1950s, the United States entered into several agreements for cooperation allowing for the export of research reactors fueled by HEU. In subsequent years, DOE has become the world's largest exporter of this nuclear explosive material.

The widespread use of HEU, which involves a large number of domestic and international fuel shipments, increases the risk of proliferation through theft or diversion of this material. Consequently, the United States has sought to reduce HEU inventories abroad. In addition, the U.S. has established a Reduced Enrichment for Research and Test Reactors Program (RERTR) which, if successful, could lead to a significant reduction and possible elimination of HEU inventories abroad. However, progress has been slow and funding for the RERTR Program has been below its needs. Indeed, the Administration has proposed significant reductions for this program in FY 1984. If proliferation risks are to be reduced, it is critical to accelerate rather than impede the substitution of alternative lower-enriched uranium, unsuitable for making weapons, as research reactor fuel.

SEC. 6 establishes a series of measures designed to phase out U.S. exports of highly-enriched uranium. Such exports will not be permitted unless (1) alternative lower-enriched fuel is unavailable, (2) the proposed recipient has provided assurances that, when such alternative fuel is available, it will be used, and (3) the Executive Branch is making reasonable progress in

developing alternative research reactor fuels. In addition, the Nuclear Regulatory Commisson (NRC) must establish the kilogram limit on the amount of HEU that will be allowed at any one time in recipient countries. Finally, the President is required to submit a plan leading to the conversion of research reactors to alternate lower-enriched uranium fuel.

Section 7

Under current law, nuclear fuel is considered to be a fungible commodity -- a given amount of fuel supplied by the United States can be exchanged for or substituted by an equal amount of fuel from another source, and the Government does not consider that prior approval is required for such a transaction. The net effect is to allow U.S. trading partners to substitute non-U.S. nuclear fuel in a way that avoids U.S.-imposed safeguards and physical security requirements.

An example of the substitution problem is found in recent efforts by the Japanese to return separated plutonium from Western Europe after reprocessing there of U.S.-origin nuclear fuel. When the United States and Japan could not agree upon adequate physical security arrangements for the transfer, Japan entered into serious discussions with the British about substituting British plutonium for plutonium of U.S. origin. Had the transaction gone through, the U.S. would have lost any say in the application of safeguards

and physical security requirements on the fuel. Moreover, under existing law the transaction would not have required the approval of U.S. authorities. Plainly, the potential for abuse is great.

SEC. 7 requires prior approval by the Secretary of Energy, under Section 131 of the Atomic Energy Act, for arrangements involving the substitution of or exchange for U.S.-supplied materials by materials which are not subject to the requirements of the Act.

Sections 8, 9 and 10

A policy that relies solely on disincentives and prohibitions is too negatively cast to be effective in achieving United States nonproliferation goals. Market forces and economic incentives can also be instrumental in achieving such objectives. There need to be positive assurances and technical assistance programs which make it worthwhile for other countries to forego the development of sensitive nuclear technologies and the use of plutonium-based fuels.

The time is right to make fuel assurance programs work. Currently, uranium is in abundant supply, prices are low, and U.S. enrichment plants have excess capacity. We can, therefore, make attractive offers to foreign trading partners who are willing to subscribe to our nonproliferation goals. A fuel assurance program

can not only make the United States a more desirable and reliable supplier of low-enriched uranium, but it can help make the United States competitive with other suppliers of low-enriched uranium fuel.

Technical assistance programs are also timely. Management of nuclear waste. development of alternative energy technolgies, and increasing light-water reactor (LWR) fuel efficiency are all areas of great and growing concern abroad. The United States has technology and programs in all these areas which it can make available to other countries, thereby directly reducing their incentives to move to more dangerous technologies. Moreover, because these programs are in place, their benefits can be extended to others at relatively little cost.

SEC. 8 establishes a program of fuel assurances and energy assistance. A nation or groups of nations agreeing to forego the development of national enrichment and reprocessing facilities, and to not seek access to or utilize separated plutonium, would receive in return the following:

1. Enrichment services, at a cost no greater than that charged U.S. government customers, to meet all their power requirements;

2. A lifetime fuel export license, covering the low enriched uranium fuel requirements of all power reactors in an agreeing

country, subject to the export criteria of existing law and the additional requirements that (a) actual exports do not exceed the amount of low-enriched fuel needed in any three-year period to fuel reactors and (b) there be an annual review by the NRC, with a report to Congress promptly thereafter, to ensure that the conditions continue to be met;

3. Technical assistance aimed at increasing light water reactor fuel efficiency and thereby reducing plutonium inventories in spent reactor fuel;

4. Technical assistance in resolving waste management problems, in accordance with the cooperative program for spent-fuel management developed under Section 223 of the Nuclear Waste Policy Act; and

In addition, a further discount on enrichment is provided for countries which agree to use improved nuclear fuel now being developed in a joint government-industry program. The mutually beneficial characteristics of the improved fuel include a 40 percent reduction in spent fuel generation, 30 percent less residual plutonium in spent fuel which is generated, and a 15 percent savings of uranium resources. The improved nuclear fuel could be commerically available by 1990 or before.

The Secretary of Energy is directed to develop a plan for and to establish and maintain fuel assurance and incentive programs,

and a new provision is added to Title I of the Nuclear Non-Proliferation Act which authorizes appropriations for such programs. Fuel supply commitments may be transferred to an international nuclear fuel authority (INFA) if and when such an authority is established. The section also provides that the discounted enrichment services will not increase the U.S. commerical enrichment price.

SEC. 9 provide an authorization for appropriations in specific dollar amounts to carry out the provisions of Section 223 of the Nuclear Waste Policy Act.

SEC. 10 amends Title V of the Nuclear Non-Proliferation Act to provide for an authorization for appropriations to assist development of non-nuclear energy resources.

Section 11

There is still considerable disagreement today over what constitutes adequate physical security over nuclear shipments and facilities. Moreover, efforts to develop adequate security measures have lagged because of the absence of needed funding. As long as there is any plutonium or highly-enriched uranium moving in international trade, it is essential that physical arrangements be as stringent as possible.

SEC. 11 amends Title II of the Nuclear Non-Proliferation Act by providing that the NRC and the Executive branch shall expand efforts to improve physical security. It authorizes appropriations in specific dollar amounts for this purpose.

Section 12

SEC. 12 amends the reporting provisions of the Nuclear Non-Proliferation Act (Title VI) to require annual reporting of progress with respect to the negotiation of fuel assurance and energy assistance agreements.

Sections 13 and 14

DOE, under current law, has substantial authority to grant authorizations for firms and individuals to engage directly or indirectly in the production of special nuclear material, such as plutonium and enriched uranium, outside the United States. Such activities can contribute as much to proliferation as direct export of nuclear fuel and equipment from the United States. Yet while the direct export of nuclear fuel and equipment licensed by the NRC is governed by a tough set of restrictions, DOE authorizations are not. For example, DOE can still authorize nuclear transfers to a country that refuses to accept full-scope safeguards and that has not entered into an agreement for nuclear

cooperation with the United States.

SECS. 13 and 14 put the Secretary of Energy essentially under identical obligations as the NRC in approving nuclear transfers. Under these provisions, authorizations by the Secretary of Energy for activities outside of the United States could not be given unless there was an agreement for cooperation in place, and the country in question has accepted full-scope safeguards and otherwise adheres to the criteria of sections 127 and 128 of the Atomic Energy Act. Further, notices of authorizations must be published in the *Federal Register* and will not become effective until at least thirty (30) days after publication. Provision is made for Presidential authorization, subject to Congressional review and override procedures, in those cases in which export criteria cannot be met, in the same fashion as the President may now authorize exports which could not be licensed by the NRC.

Section 15

Nuclear nonproliferation is a national security problem. Nevertheless, the Secretary of Defense is now on the periphery of most U.S. international nuclear decisions. The Secretary has only a consultative role in decisions to grant export licenses and to permit subsequent arrangements. He has no formal say whatsoever concerning agreements relative to military partnerships. This lack of formal Defense Department involvement in U.S. commericial

nuclear trade decisions is particularly troublesome today, when a number of countries, on the brink of confrontation, might well seek to acquire nuclear explosive materials to make nuclear weapons.

SEC. 15 provides a specific role for the Secretary of Defense in nuclear non-proliferation matters. The Secretary of Defense must find that proposed agreements for cooperation are not inimical to the common defense and security of the U.S.; he must so advise the NRC, through the Secretary of State, in connection with export licenses; and he must sign off on subsequent arrangements under section 131 of the Atomic Energy Act.

Section 16

Department of Commere (DOC) export licenses for nuclear-related commodities are not now subject to restrictions comparable to those governing NRC export licenses. As a result, items on the Commerce Nuclear Referral List, which include commodities which have direct application for nuclear weapons production, may be sent to a country that does not accept full scope safeguards or provide other assurances. Most recently, the export of two powerful computers applicable to nuclear weapons design was approved to South Africa, despite South Africa's refusal to accept full-scope safeguards. DOC also approved the export by an American company of a powerful computer, via Belguim

and Switzerland, for use in an Argentine heavy water plant, even though Argentine likewise has refused to accept safeguards on all its nuclear activities.

SEC. 16 imposes upon DOC the same obligations that are imposed upon the NRC and DOE. In other words, before a validated license can be issued under the Export Administration Act for goods or technology which are to be used in a production or utilization facility, or for goods or technology which are likely to be applied to such use, there must be an agreement for cooperation in place and the country in question must have full-scope safeguards and otherwise adhere to the criteria set forth in sections 127 and 128 of the Atomic Energy Act.

The concurrence of the Department of Defense, DOE and the NRC is required in connection with findings of likelihood that particular goods or materials will be used in nuclear facilities. Presidential authorization is again provided for, subject to Congressional review and override procedures, if the export criteria are not met.

Section 17

One of the anomalies in current law is that component exports by the NRC are not subject to the same stringent licensing requirements as "facilities". The NRC has broad discretion to

decide what does and what does not constitute a "facility", and, under current regulations, numerous, critical components are excluded from the full panoply of licensing procedures and requirements. Consequently, exports may be allowed to countries which do not have full scope safeguards or an agreement for nuclear cooperation with the United States.

SEC. 17 makes component exports by the NRC subject to the same licensing requirements as production and utilization facilities.

Section 18

Another anomaly in existing law related to sales and transfers which may be made by affiliates of U.S. corporations. The Westinghouse Electric Co., for example, at one point appeared near to circumventing U.S. nuclear export controls by offering a $1.1 billion, 900 megawatt nuclear power reactor to Pakistan through affiliated companies in Spain. Although direct export of nuclear powerplant to Pakistan is prohibited by U.S. law, because Pakistan has neither accepted full-scope safeguards nor entered into an agreement for peaceful nuclear cooperation with the United States, such indirect transactions appear to fall through a major loophole in our nonproliferation legislation.

SEC. 18 asserts control over foreign affiliates of U.S.

firms, so that transfers via foreign affiliates will be controlled as if they were transfers by U.S.-based firms.

Section 19

Prohibitions have little meaning if they are not enforced. Under the existing law, even if non-proliferation requirements are violated by nations receiving nuclear assistance from the U.S., there is no automatic cut-off of nuclear exports. Potential violators can thus afford to take greater risks in pursuing policies and programs contrary to U.S. nonproliferation objectives.

SEC. 19 provides for an automatic cut-off of nuclear exports to nations in violation of section 129 criteria, unless the President determines, and Congress agrees by concurrent resolution, that exports should continue.

APPENDIX 6

TEXT OF BALTIMORE SUN ARTICLE OF SEPTEMBER 17, 1983

ARGENTINE NUCLEAR POTENTIAL STIRS CONCERN

SOME FEAR BOMB MAY BE NEAR

WASHINGTON.—Intelligence specialists and nuclear experts are increasingly concerned that Argentina is developing the ability to build nuclear weapons and may actually be planning to build a nuclear bomb.

An intelligence report now circulating among key officials of the Reagan administration contends that Argentine nuclear officials have a "secret plan" to divert a ton of uranium from under the noses of international inspectors and use the material to make nuclear-fuel elements.

Such fuel elements could presumably be irradiated, through further clandestine steps, to produce plutonium for an atomic weapon, or they could presumably be stockpiled and saved to build a bigger arsenal at some future time. The intelligence report does not spell out the possibilities.

Many nuclear experts consider the intelligence estimate implausible and doubt Argentina is really planning such a secret and illegal diversion. But they, too, express concern over what they see as an even greater danger: Argentina's progress in building, openly and legally, a range of nuclear installations that are not subject to international inspections and safeguards. These installations could eventually be used to produce bomb materials without violating a single international law or treaty, should Argentina so desire.

"Argentina is probably closer than anybody else in the world today to completing an un-safeguarded nuclear fuel cycle," says Sherman Hinson, a State Department official with long experience in issues dealing with the spread of nuclear weapons. "And there's nothing secret about it. That's the truly disturbing thing."

Argentina has refused to sign the Nuclear Non-Proliferation Treaty, under which nations agree not to build nuclear arms. And while it has reluctantly agreed to allow some of its nuclear installations to be inspected and monitored by the International Atomic Energy Agency, it has steadfastly refused to allow all of them to be monitored.

Many specialists believe that the U.S. government, particularly the Reagan administration, has been lax in allowing nuclear-related materials to be transferred to Argentina without demanding that Argentina place all of its nuclear installations under safeguards.

Last year the Reagan administration approved the sale of a computer-control system to Argentina as part of a plant to produce heavy water for use in the nuclear-fuel cycle. And in early August the administration announced it had approved the sale of 143 tons of heavy water, originally made in the United States, from West Germany to Argentina. The heavy water, though not bomb material itself, is essential to the operation of Argentina's nuclear reactors.

Paul Leventhal, president of the Nuclear Control Institute, an organization concerned about the spread of nuclear weapons, calls the transfer "disturbing" because of "the regular reports we hear of intelligence assessments that Argentina is pursuing the bomb and because Argentina has said it intends to pursue a nuclear-explosion program and develop a fully independent fuel cycle with no restrictions on how the materials are used."

But Mr. Hinson, who is also concerned about Argentina's ability to produce nuclear weapons, considers the heavy water transfer of no great significance. A confidential letter written last month by George P. Bradley, Jr., a deputy assistant secretary of state, argues that the Argentines are unlikely, for practical and legal reasons, to use the heavy water except in reactors that are subject to safeguards.

By all accounts, Argentina has one of the most advanced nuclear-energy programs among the nations that have not yet exploded nuclear weapons and has become the major nuclear exporter in the developing world.

The Argentines have regularly drawn upon technical help from the advanced nations, including West Germany, Switzerland, the United States and Canada, among others. In return, the advanced nations have generally required that the plants and materials they supply be put under safeguards that include inspections and surveillance by the International Atomic Energy Agency to detect any diversion of materials.

American intelligence experts have periodically reported that Argentina is secretly assembling material for bombs, either by building clandestine plants or by diverting material from supposedly safeguarded plants. The intelligence estimate now circulating was prepared by the Central Intelligence Agency and first distributed within the government in May.

It contends that there is a secret plan to divert processed uranium from a West German-built plant that converts yellowcake, partly treated uranium ore, to uranium dioxide, a step in the fabrication of nuclear fuel. It says the plant has an annual capacity of 150 tons, and that one ton could be diverted and made to look like a bookkeeping error, thus presumably fooling the inspectors.

But various experts in the Nuclear Regulatory Commission, the State Department and Congress express doubt that such a maneuver is plausible. They contend that similar intelligence estimates in the past proved mistaken or exaggerated, and they doubt that a ton of uranium—enough to produce plutonium for a bomb or two—would be worth the risk of getting caught diverting it.

In addition, the Argentines would probably have to escape detection a second time as well. This is because the uranium fuel would have to be irradiated in a reactor to produce plutonium for bombs, and all of Argentina's reactors are currently subject to safeguards. The experts disagree on how easy or difficult it would be to run the diverted uranium through these reactors secretly, but all say there would be some risk of getting caught.

The great danger, many experts say, is that Argentina is well on its way toward a totally independent nuclear-fuel cycle that would allow it to produce bomb-grade materials in plants not subject to international safeguards.

Argentina already mines uranium ore from its own reserves, and can convert the material to uranium dioxide and the fabricate it into fuel elements in plants that are said to have un-safeguarded production lines.

APPENDIX 7

ARMS CONTROL TODAY, VOLUME 13, NO. 6, JULY 1983 ENTITLED "THE ACDA SCANDAL: A CRITICAL AGENCY BECOMES A BASKET CASE"

The ACDA Scandal

A Critical Agency Becomes a Basket Case

Lawrence Weiler

JAN 9 '84
WASHINGTON OFFICE
CONG. MICHAEL D. BARNES

For week after week this winter, Washington was caught up in the kind of political fight the city loves: the battle over Kenneth Adelman's nomination to be Director of the Arms Control and Disarmament Agency (ACDA). Dramatic hearings, a surprise witness, leaked memos, Presidential arm-twisting, and speeches on the Senate floor culminated in a final vote which narrowly supported the President. Unfortunately, while it made good newspaper copy, the Adelman controversy obscured a scandal affecting the U.S. commitment to arms control: in the last two and a half years, ACDA has become a shambles, largely incapable of performing the tasks assigned to it by the Arms Control and Disarmament Act of 1961 and by subsequent amendments. While some agencies always suffer from neglect and disorganization after a change in Administrations, ACDA has begun to resemble the pre-Ruckelshaus EPA. Pro forma criticism and head-shaking will not be enough. Only close scrutiny and intense public pressure will set our arms control house in order.

Background

ACDA was established as a result of concern about the sporadic, ad hoc way in which the government managed arms negotiations after the 1957 demise of the White House disarmament office. The U.S. arms control effort lacked sufficient resources, continuity, and institutional memory. These problems became an issue in the 1960 Presidential Campaign, and the creation of an agency to give focus, resources and momentum to arms control was an early objective of the Kennedy administration. Congressional support was led by Senator Hubert Humphrey, still regarded as the "father" of ACDA.

There was, nevertheless, considerable opposition to the idea of a separate agency, in particular because some conservatives feared it would become a center for over eager "disarmers." In a brilliant political act Kennedy appointed John J. McCloy his special adviser on disarmament, giving him responsibility to plan the organization of the executive branch to deal with arms control. McCloy was assisted by his deputy, Adrian Fisher, later to become the Deputy Director and driving force of ACDA for its first eight years, and George Bunn, ACDA's first General Counsel. Together, they fashioned a statute that had wide support and assured ACDA's creation. The Congressional vote in favor of establishing ACDA: 72 to 14 in the Senate, and 280 to 54 in the House, showed the new agency was an idea whose time had come.

The lingering concern of some conservatives was met in a variety of ways, one of which was the establishment of an ACDA General Advisory Committee (GAC) of senior establishment types, chaired by McCloy. The GAC, in addition to giving periodic advice to the Secretary of State and the President, was to serve as a watchdog of ACDA.

The responsibilities given ACDA in 1961 were extensive, probably too extensive ever to be fully met by an agency of limited resources in competition with the established bureaucracies of Washington. They stand, nevertheless, as a standard by which the Reagan Administration's actions during the first two and a half years should be measured. According to the statute creating ACDA:

> The formulation and implementation of U.S. arms control and disarmament policy in a manner which will promote the national security can best be insured by a central organization charged by statute with primary responsibility for this field. This organization must have such a position within the Government that it can provide the President, the Secretary of State, other officials of the Executive branch and the Congress with recommendations concerning United States arms control and disarmament policy, and can assess the effect of these recommendations upon our foreign policies, our national security policies, and our economy.

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This organization must have the capability to provide the essential scientific, economic, political, military, psychological, and technological information upon which realistic arms control and disarmament policy must be based. It shall have the authority, under the direction of the President and the Secretary of State, to carry out the following primary functions:

(2) The conduct, support, and coordination of research for arms control and disarmament policy formulation.

(b) The preparation for and management of United States participation in international negotiations in the arms control and disarmament field;

(c) The dissemination and coordination of public information concerning arms control and disarmament; and

(d) The preparation for, operation of, or as appropriate, direction of United States participation in such control systems as may become part of United States arms control and disarmament activities.

The Director of ACDA is to serve as "principal adviser to the Secretary of State, the National Security Council and the President on arms control and disarmament matters" and, under the direction of the Secretary of State, to have "primary responsibility within the Government for arms control and disarmament matters."

The first eight years of the Agency under the direction of William Foster, a Republican businessman and former Defense Department official, were active ones. The Agency's resources and talents were gradually expanded and it became directly involved in support of on-going negotiations. These years saw the achievement of the Hot Line and the Limited Test Ban, Outer Space and Non-Proliferation treaties. Numerous other research programs, studies and task forces were initiated in the early years. Most did not lead directly to negotiations and some were unproductive, but one, the Ling Panel Report on nuclear delivery vehicles, led to the U.S. delivery vehicle freeze proposal of 1964 and in a sense was the origin of the SALT process.

The successful negotiation of the four year Non-Proliferation Treaty negotiations was the most important factor in establishing the new agency as an accepted and respected part of the national security bureaucracy. This lengthy negotiation, at the time the most complicated and extensive multilateral negotiation of the post-war period, would never had succeeded without the resources and persistence of ACDA. Indeed, in the first two years of negotiations, some in the largely negative State Department gave the treaty no chance of success.

The strengthening and improvement of the Agency continued from 1969 to 1972 under the direction of Gerard Smith, whose commitment to the idea of a strong institutional basis for arms control had been formed during his long experience with past arms control efforts. The heavy pace of SALT I preparations and negotiations brought a significant improvement in the Agency's analytical and technical capabilities especially in the utilization of research resources for technical support of the Agency's participation in SALT. In spite of Mr. Nixon's mistrust of the Agency—if not of Smith—Henry Kissinger, frequently drew on the Agency's resources, often without attribution within the interagency machinery. ACDA's expanded resources also enabled the Agency to take the lead role in the two concurrent negotiations that led to the Bacteriological Warfare Convention and the Seabeds Treaty.

By 1972, the Agency had reached what was probably its highest level of competence and continuity of personnel and institutional memory. What the Congress in 1961 had intended, had been achieved, a well-staffed, if sparsely funded organizational structure that would maintain continuity through changes of administrations.

Then the troubles began. The sudden "purge" of ACDA that the White House instituted in 1973, immediately after Smith's resignation, was inspired in large part by ACDA's efforts to achieve a zero ABM treaty and—shades of the Scowcroft Report—a MIRV ban in SALT. The purge partially destroyed what had been built up over twelve years. (The purge extended to a lesser degree to State Department arms control officials and to the Joint Chiefs of Staff's SALT representative.) The purge was accompanied, as SALT II negotiations were beginning, by a White House-directed sharp budget reduction reportedly to teach ACDA a lesson. The Agency never fully recovered from the effects of the 1973 purge, though by the late seventies it was getting close.

One of the consequences of the "purge" was that Henry Kissinger, who had acquiesced in the action taken, found himself on the far left in the interagency battles on SALT II issues, with little in way of analytical or technical resources to draw upon. The opposition of new ACDA Director, Fred Ikle to Kissinger's effort to strike a SALT II deal before the 1976 election probably cost an early agreement.

The removal from the Agency of many of those who still sought to bring MIRVs under control contributed to the current preoccupation with ICBM vulnerability. A little-known fact affords an example. At the end of the first session of SALT II, the Soviets proposed a moratorium on certain "threatening" new systems to give the negotiations time to produce a comprehensive agreement, and specified the B1 bomber and the Trident submarine as U.S. systems they had in mind. They said the U.S. should indicate which new Soviet systems we wished the moratorium to cover. The "purge" occurred shortly after this exchange, and in the upheaval that followed, this possible opening, which might have delayed Soviet SS18 and SS19 MIRV programs, was lost and never followed up.

Congressional oversight of the health of the Agency it had created was slight immediately after the purge—a few per-

continued

functory hearings were held in the early 1970's. Senator Humphrey's plan to have an investigation faded with his failing health and other efforts were soon overwhelmed by the breaking Watergate scandal. The Agency was wounded, but still functioning.

With the advent of the Carter Administration, the Agency, under the vigorous new direction of Paul Warnke, began a rapid rebuilding program. Staff dedicated to solving arms control problems was recruited, funding was increased, morale rose and the nation once again had a functioning institutional structure to deal with arms control issues. The ambitious arms control agenda of the Carter Administration—SALT II, Comprehensive Test Ban, Chemical Weapons, Anti Satellite Talks, Arms Transfers, and Indian Ocean deployments—did, however, strain the resources of the Agency.

If, generally speaking, the Agency was able to meet its responsibilities during this rebuilding period, two factors limited its full recovery. The strength of the Agency within the government was probably weakened by the brutal Warnke confirmation fight in the Senate. Moreover, the Warnke period was shortened with his departure after only two years, at a time when SALT II began to experience trouble in the Senate. The designation of a retired general, George Seignious as the new Director was part of the tough image the Carter Administration sought to project in hopes of saving SALT II; but, it sent a message to the Agency. Departures of some key staff personnel began shortly thereafter. While ACDA continued to play a significant role on the remaining period of the SALT II negotiations, the focus shifted to Secretary Vance and the Political Military Affairs bureau in the State Department. For much of the agency, this was an "on hold" period. When Seignious resigned for reasons of health, the slow decline of ACDA, and the morale of its staff continued during the brief caretaker directorship of Ralph Earle. In spite of this, however, the technical and analytical capability of the Agency, together with experienced staff, remained generally intact, if uninspired by lack of leadership.

ACDA Under Reagan

None of the past troubles of ACDA, however, have matched what has happened in the two and a half years of the Reagan Administration.

Morale is at an all-time low.

The budget of ACDA in the first two years was reduced by roughly 30%. Even after Congressional prodding, the FY 1984 authorization requested is, in effect, only $16.4 million, compared to a 1981 authorization of $20 million. The research budget of the Agency has been cut from its earlier high of around $6,000,000 to $1,000,000. The Agency's Research council has been abolished.

The Agency has been and is without leadership in its top positions. In the first year of the current Administration, except for the nomination of the earlier Director, Mr. Rostow (which was made after more than a six month delay), not a *single* nomination for the statutory officials of the Agency was even submitted to the Senate. The nomination of a Deputy Director, Mr. Robert Grey, was finally decided upon, but then withdrawn. Mr. Grey being a victim of a vendetta by right-wing Senate staffers who had themselves been fired from ACDA by the Reagan White House. His sin was trying to maintain some professionalism in second level appointments. The recently confirmed Deputy Director is a defeated congressman from Maine, with no experience at all in arms control or national security issues. Even today, only two of the four Assistant Directors are confirmed appointees, one of whom is a retired military officer. Of ACDA's 28 top management positions, about 30% are currently vacant or filled only on an "acting" basis. In two and a half years, there have been four de facto or confirmed individuals at the head of the Agency.

Personnel levels, always small in comparison with the Agency's statutory responsibilities, have been reduced roughly 25%, to a total authorized permanent level of 154, the lowest figure in the Agency's history, aside from the initial staffing year of 1962. The Agency's request for FY 1984—after the confirmation of Adelman—would retain this same low personnel level. One example of the consequences of current levels: When Mr. Paul Nitze recently requested one additional staff member from ACDA for his INF delegation, he was turned down because sufficient staff was not available.

The Operations Analysis (OA) Division of the Agency, which with its computer capability had been built up under four administrations over the past 16 years, was abolished. This was justified as a budget measure, but in fact reflects the hostility of right-wing forces in the executive branch and in the Senate. OA was the only resource within the government that could keep the Pentagon honest and pose analytically-based hard questions in the interagency debates over arms control issues and options. (One reason for right-wing hostility was a non-classified publication prepared by the division in the late seventies—now discontinued—on the effects of nuclear war.) The personnel of the division has been scattered throughout the Agency, and the Agency reduced to using the computer services of the U.S. Railway Association; for part of last year and this year the Agency was without any ability to do classified computer studies. Aside from the loss of a five million dollar investment in computer hardware and software, the destruction of this division, which cannot quickly be rebuilt, has destroyed one of the major governmental resources for arms control.

ACDA

from page 3

The institutional memory of the Agency is in danger of disappearing. Some time ago, central records were decentralized to individual bureaus. With the disruptions and numerous reorganizations of the Agency in the past two years, most organized substantive records are now largely in the form of personal files of individual staff officers, who may or may not be around for long. One example will illustrate the condition. Last year, the Federation of American Scientists submitted a Freedom of Information request for release of the 1969 ACDA "Stop Where We Are" (SWWA) proposal. While not accepted by the government at the time, this was the major ACDA proposal for SALT I. Yet the agency was forced to certify in a formal affidavit that "we initiated a thorough search of our files and did not find a copy of the requested document." So much for institutional memory! (After the FAS appealed, a copy was ultimately located, sanitized and forwarded to Federation; the document was found by probably the one place in government that still has institutional memory, the Joint Chiefs of Staff.) It might be noted that in the affidavit filed after the document was located the Agency stated that many of the issues associated with proposals in the document were currently under active discussion in START.

The Agency's library, which over 21 years has been built up to probably the largest arms control library in the nation has been shipped off to George Washington University, where it is now stored in that institution's special books collection. This action was taken as an economy move, after alternative space could not be found in the State Department. It is symbolic, however, of what has happened to the Agency. And under the terms of the transfer agreement, the government, even if it so desired, cannot recover its own arms control library for five years.

Sadly, some have shrugged their shoulders at ACDA's fate. It is certainly the prerogative of this president to have appointees in political positions who share his skepticism of arms control. It is also true that Presidential views and decisions are more important than governmental machinery. But anyone concerned about arms control must consider the Reagan Administration's treatment of ACDA a scandal, for at least two key reasons. Presidents do change their views, either because they learn or because of the pressures of the realities of the world, both domestic and international. With the exception of Mr. Carter, probably no postwar president has entered office as a really strong advocate of arms control, though most have left office as such. President Reagan still may. The President's defense officials claim they are "arming to parley." They cite the President's support of the Scowcroft Commission's recommendations, and the recently-announced "flexibility" in the U.S. START position. But there is little prospect of success in START or elsewhere if an effective professional governmental support structure dedicated to solving arms control problems is weakened or destroyed. A strong ACDA is needed to present alternative options, to analyze arms control implications of some current weapons programs and to deal with the inevitable naysayers within the interagency structure.

A second basic consideration is that the Arms Control and Disarmament Agency is not some toy that the Congress created to be broken or tossed aside at the whim of the Executive. It is an established part of the structure of the government, specifically designated to play a central role in the nation's efforts to control the arms race. The Congress wanted the president to have arms control options presented, to have an effective voice for arms control consideration within the executive branch, to have arms control research, to have institutional memory and experienced personnel. It is a presidential responsibility to carry out this congressional mandate. It is the responsibility of the Congress to see that this is the case. It is the right of citizens concerned about the arms race to hold both accountable.

There have been a few positive moves by Congress. Chairman Clement Zablocki of the House Committee on Foreign Affairs became sufficiently concerned that he asked the General Accounting Office to undertake an audit of the Agency. The preliminary report of GAO to the Committee cited some of the developments noted above, as well as others. Prominent arms control spokesmen testified to the Committee on ACDA's troubles. Even some conservative Republican members of the Committee were disturbed by what they learned.

As a result, there was bipartisan agreement in the Committee to include the ACDA's authorization legislation an increase in the Agency's budget to $20.8 million and $21.9 million for FY 84 and FY 85, to permit an increase in permanent staff levels to 174 and to make the Director a statutory member of the National Security Council. These are valuable moves in the right direction. But Congress as a whole is still in the head shaking rather than the finger shaking stage. There is little assurance that corrective action will be taken within the executive branch. Mr. Adelman has said the President wants him to rejuvenate ACDA. So far there is no evidence of this, or that the White House will not continue to keep the Agency and its official appointments hostile to right-wing Senators and staff.

In a recent talk to the Congressional Caucus of the League of Women Voters in Washington, Senator Charles Mathias, a consistent supporter of ACDA, rather plaintively proposed that the League "adopt" ACDA, in order to use its influence to protect the Agency and help nuture it back to health. At first glance, this seemed, and properly so, a somewhat pathetic call from a member of the Senate. What about Congressional oversight responsibilities? Yet, there is in the Senator's call an essential kernel of truth. The EPA affair proved that a sense of public concern and outrage does wonders for Congressional oversight—and for Executive response.

There are millions of Americans concerned about the arms race. Many may not have understanding of all the intricacies of arms control issues. But if the facts are made available, they can sense when "no one is tending the store." And that, to them, is a clearer litmus test of sincerity in arms control efforts. There are primaries and elections coming up. Candidates should be made to focus on the ACDA scandal.

Rejuvenation of ACDA will not, by itself, bring renewal of prospects for arms control. Presidential policy is clearly the crucial element. But without an effective and vigorous Agency, any real change in that policy is less likely to take place, and even if it should, less likely to be successfully implemented. As a first step, citizens can insist that the store be put in order. It is, after all, the future of their children that the business of ACDA is all about.

Lawrence D. Weiler has been involved in U.S. arms control efforts for over 25 years. He served on the White House Special Staff on Disarmament in the Eisenhower Administration, as an arms control official in the State Department and during 15 years in ADCA held various positions, including that of Counselor of the Agency. Dr. Weiler has been on U.S. delegations for negotiation of such agreements as the Hot Line, the N.P.T. and SALT I. He has written extensively on arms control issues and is currently Professorial Lecturer at George Washington Univ.

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[1]The role of the GAC during SALT I proved to be a real irony; its members became the strongest advocates within the bureaucracy for a "zero" ABM agreement and for a real effort to obtain a MIRV ban. Since that time, the GAC has declined in stature and influence, and, with a few exceptions, is currently composed of conservative non-distinguished types from the think tanks and the defense establishment; it is an interesting commentary on that decline that in the current Congressional calls for a high level bipartisan commission on arms control, no one thinks of the current General Advisory Committee as meeting that need.

APPENDIX 8

Special Report of the Nuclear Control Institute Entitled "World Inventories of Civilian Plutonium and the Spread of Nuclear Weapons"

Summary

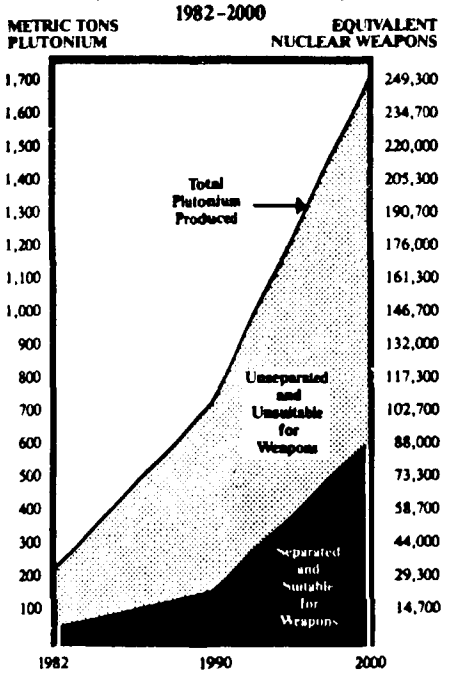
A key barometer of nuclear-weapons proliferation can be found in the inventories of plutonium, a nuclear explosive material, that are rapidly accumulating as a by-product of civilian nuclear power programs throughout the world.

The modern nuclear powerplant, in addition to producing enough electricity for a city of about one million people, also produces enough plutonium each year for dozens of atomic bombs. There are now 211 nuclear powerplants in the non-communist world with a combined capacity to produce 159-billion watts of electricity and about 40 metric tons (88,000 pounds) of plutonium a year.[1,2] This is enough electricity for about 150 million people and enough plutonium for about 6,000 atomic bombs a year.

This report provides the most complete available information on how much plutonium has been produced by civilian power reactors in each country through 1982, as well as the amounts projected to be produced through the year 2000. It also provides the best available information, by country, of how much plutonium already has been processed into weapons-usable form, how much has been contracted to be processed into such form through 1990, and how much weapons-usable plutonium can be separated by the end of the century.

Plutonium is a by-product of the splitting of uranium atoms—the "fission" process that takes place inside the reactor of a powerplant. So long as plutonium remains in the highly radioactive used ("spent") fuel of a reactor, it is inaccessible and in an impure, diffuse form unsuitable for making weapons. If plutonium is chemically extracted from spent fuel in a heavily shielded reprocessing plant, it becomes concentrated into a pure form that can be reused as reactor fuel, but also can be used in nuclear weapons. (Plutonium was used in the first atomic bomb tested by the United States and in the bomb that destroyed Nagasaki.)

PLUTONIUM PRODUCED IN WORLD NUCLEAR POWERPLANTS (Non-Communist Countries) 1982-2000



WORLD POWERPLANT PLUTONIUM (Metric Tons)

YEAR	1982	1990	2000
Unseparated	175	560	1150
Separated	44	150*	600*
TOTAL PLUTONIUM	219	710	1750

*Based on planned reprocessing capabilities worldwide (see Table 6)

Although commercial plutonium is accumulating at an alarming rate throughout the world, most of it still remains "locked" in highly radioactive spent fuel. Some 219 metric tons of plutonium have been produced by power reactors in the non-communist world through 1982, of which about 44 tons, or 20%, have been reprocessed from spent fuel. Nearly all of the separated plutonium remains in nuclear-weapons states where most of the commerical reprocessing plants are now located.

[This report deals primarily with commerical plutonium in the non-communist world, for which the best data exists. Available data indicates that in the communist countries some 41 metric tons of plutonium have been produced in civilian power spent fuel (excluding breeders)—36 tons, or 88%, of it in the Soviet Union—and that all Eastern Bloc spent fuel is stored in the Soviet Union where most of it has not been reprocessed to date *(see Table 10)*.]

The fact that four-fifths of the free world's plutonium remains unreprocessed while most of the remaining one-fifth remains in nations already possessing nuclear weapons, indicates that the wherewithal to develop large nuclear arsenals has *not* yet spread throughout the world. This situation presents a major and final opportunity for the United States and other nuclear industrial nations to develop a non-proliferation strategy that controls and contains plutonium before large quantities of it spread in weapons-usable form to nations not now possessing nuclear weapons. This opportunity is enhanced by the fact that construction and operation of commercial reprocessing plants have encountered severe technical, economic and in some cases political difficulties, thereby putting the industry's plans for recovery and reuse of plutonium behind schedule. On the other hand, the official long-term commitment to using plutonium as fuel in conventional and breeder reactors remains high in most developed and developing countries with nuclear power programs, even if this objective takes longer to achieve than originally planned.

Unless this commitment to plutonium is reversed, there is the grim prospect that vast stocks of weapons-usable plutonium will proliferate throughout the world over the next two decades in the absence of an international safeguards system capable of assuring that significant amounts are not diverted to the manufacture of nuclear weapons. Furthermore, the risk of hijackings and thefts by terrorists will increase in proportion to the increasing amounts of separated plutonium that are introduced into world commerce.

Projections of vast amounts of plutonium in commerce remain firm even in the face of substantial reductions in nuclear powerplant construction throughout the world. Plutonium in spent fuel is projected to increase nearly tenfold from 175 tons in 1982 to 1700 tons in the year 2000 while installed nuclear power capacity triples or quadruples during this period.

An average of three to six tons of plutonium is now being reprocessed from spent fuel annually; this will increase to 19 to 22 tons annually by 1990—most of the increase attributable to an expansion of the French reprocessing plant at La Hague. As much as 150 tons of plutonium will be separated through 1990, some 60 percent of it in France. The French have contracted to reprocess about one-quarter of all the plutonium in spent fuel from light-water reactors (the most common type of power reactor) through 1990—40% of it from foreign sources.

By the year 2000, about 600 tons, or about one-third of the plutonium produced in the spent fuel of nuclear powerplants by that time, will have been separated out if reprocessing plants are built and operated as planned throughout the world. This amount of separated plutonium is equivalent to at least 88,000 nuclear weapons—about half again as many as in the combined arsenals of the superpowers today.

It is not suggested that this many weapons will actually be built. It is suggested that large national stores of separated plutonium provide the wherewithal for large nuclear arsenals. Furthermore, undetected diversions of at least one percent of separated plutonium would be possible and could result in hundreds of new nuclear weapons. Plutonium poses a sufficient global danger to warrant all nations promptly abandoning the reprocessing of spent fuel and the use of plutonium as a civilian fuel.

APPENDIX 9

"United States-Japan Talks on Long-Term Plutonium Use Seen Likely To Dissolve After Recent Round," From Nuclear Fuel, September 26, 1983

Talks aimed at amending the U.S.-Japanese agreement for nuclear cooperation are likely to dissolve but just when is uncertain, according to informed Washington sources. The two sides were still apart on several issues after a recent meeting in Tokyo but there may be another meeting before any decision on suspending the negotiations is made, they said. Originally, the two sides hoped to arrive at an arrangement under which the Japanese would have long-term permission to reprocess U.S.-origin fuel. In exchange, the U.S. wanted to incorporate all the requirements of its Nuclear Nonproliferation Act (NNPA) under the current bilateral agreement, as required by the act, and at one point pressed the Japanese to adopt U.S. nuclear export criteria as their own — something not required by the act.

While the agreement covers most of the NNPA criteria, it doesn't cover certain provisions of section 123 which would give the U.S. extended approval rights over reprocessing, enrichment and Pu use. Demands to meet those criteria are apparently too much and, with routine retransfer requests coming through on a more predictable basis than under the Carter Administration, the impetus for a long-term agreement is just not there, sources say. Besides that, they add, the Japanese are not particularly happy about the U.S. refusal to grant unconditional approval of a planned commercial reprocessing plant. Also influencing the outcome, according to one source, is "sentiment in Japan favoring a decoupling from the U.S." on nuclear matters.

So, he says, if U.S. negotiators feel there are no further avenues to explore, they will likely make a recommendation to suspend discussions to Secretary of State George Shultz who would forward the recommendation to the President. Without a generic arrangement, he observes, issues such as the continued operation of the Tokai Mura reprocessing plant will continue "to be decided one-by-one." The current agreement allowing reprocessing of U.S.-origin spent fuel at Tokai runs through 1984. It was signed in the fall of 1981.

Congress is "not likely to nitpick the Administration" if the talks are suspended, a congressional source says. There is "no timetable set up in the bill" for renegotiating bilateral agreements for cooperation to incorporate NNPA criteria, he says, and with all its other nonproliferation-related concerns, Congress would be unlikely to focus on the Japanese agreement.

APPENDIX 10

"Blix Says IAEA's Role is Promotional," From Nuclear Fuel, September 26, 1983

IAEA Director General Hans Blix says he sees the agency's activities, including safeguards, as promotional rather than regulatory. Speaking at the Fourth Pacific Basin conference in Vancouver earlier this month, Blix said the agency was "set up specifically to promote the peaceful uses of nuclear energy. Its statute stipulates that 'the agency shall seek to accelerate and enlarge the contribution of atomic energy to peace, health and prosperity throughout the world.' " To carry out the mandate, he said, the agency must ensure that assistance it provides is not used to further any military purpose and, to that end, must establish and administer safeguards.

"While it has often been suggested that the agency has the dual roles of promotion and regulation (i.e. safeguards), this is only one way to view the situation," Blix said. "I would rather view all the agency's activities, including safeguards, as promotional. The safeguards system fosters confidence among nations that nuclear activities are devoted to peaceful rather than military applications. Without such confidence, international nuclear trade might well grind to a halt."

Blix stressed the importance of international cooperation, saying that without it many nations would have a difficult, if not impossible, time developing peaceful nuclear power programs. "There is a wide variety of aspects of the development of nuclear energy that individual countries cannot achieve alone or that they can accomplish more easily through international cooperation," he said. "Specific mechanisms are needed in order to implement such cooperation." Various international scientific societies exist for that purpose, he said, but "the IAEA is a unique mechanism because it is the only universal institution, i.e., open to all countries." There are presently 111 member states in the agency, he noted.

APPENDIX 11

LETTER FROM REPRESENTATIVE OTTINGER TO REPRESENTATIVE BONKER CONCERNING REPROCESSING U.S.-ORIGIN SPENT FUEL UNDER H.R. 3058

U.S. House of Representatives, Subcommittee on Energy Conservation and Power of the Committee on Energy and Commerce, Washington, D.C., November 30, 1983

The Honorable Don Bonker
Chairman
Subcommittee on International Economic
Policy and Trade
Committee on Foreign Affairs
U.S. House of Representatives
Washington, D.C. 20515

Dear ~~Mr. Chairman~~ Don:

During your hearing on October 26, 1983 to consider H.R. 3058, the Nuclear Explosives Control Act, which I introduced, a question arose about how requests for the reprocessing of U.S.-origin spent fuel would be handled under my proposal. Specifically, you asked whether reprocessing that would be permitted under the bill would create an incentive for countries to develop their own reprocessing capabilities.

The answer to the question is clearly that it would not. Section 5 of H.R. 3058 states that approval for reprocessing would be given only where the proposed reprocessing would take place "in a facility in operation or under construction as of the date of enactment of this section". Thus, there would not be an incentive to develop new reprocessing facilities because approval could not be granted to reprocess U.S.-origin spent fuel in new facilities.

Similarly, the bill would also limit the use of U.S.-controlled plutonium resulting from reprocessing to requests involving a particular end-use; namely, use in research, development or demonstration facilities where such facilities were in operation or under construction as of the date of enactment of the bill.

By limiting such approvals to these existing commitments, H.R. 3058 would allow the United States to act in good faith within the terms of its agreements with other nations. At the same time, it would limit the future use of nuclear explosive materials over which we exercise control and that are of such great proliferation concern.

I would be pleased to answer any additional questions you may have about the proposed legislation and I urge its adoption by the Subcommittee during the second session of the 98th Congress.

Sincerely,

Dick

Richard L. Ottinger
Chairman

APPENDIX 12

LETTER FROM NRC CHAIRMAN PALLADINO TO SECRETARY OF ENERGY HODEL CONCERNING RETRANSFER OF U.S.-ORIGIN HEAVY WATER FROM WEST GERMANY TO ARGENTINA

Chairman
United States Nuclear Regulatory Commission,
Washington, D.C., October 4, 1983

The Honorable Donald Paul Hodel
Secretary of Energy
Washington, D.C. 20585

Dear Mr. Secretary:

On August 3, 1983, the Department of Energy approved a request from EURATOM to retransfer 143 metric tonnes of U.S.-origin heavy water from West Germany to Argentina. The Commission recognizes the Executive Branch's responsibility for implementing the U.S. Government's nonproliferation policy. Insofar as this policy is implemented through various export-related activities, the Commission has sought to ensure, in accordance with its statutory mandate, that NRC judgments on export matters take into account and are consistent with U.S. nonproliferation objectives. Moreover, in the great majority of export actions reviewed by the Commission since its inception, the Executive Branch has cooperated with NRC in responding to the Commission's requests for information and the Commission has then completed its review in a timely fashion. In view of this record of proper interagency consultation in conformance with the Nuclear Non-Proliferation Act's requirements, the Commission is troubled over the Executive Branch's actions in the heavy water retransfer case.

As you may know, in the Commission's view, the NRC was not provided complete and accurate information on the status of the Executive Branch review of this retransfer. In addition, the Commission believes that this approval occurred without proper consultation with NRC, despite the fact that the Department had agreed to consult with the NRC on this matter and had been informed prior to approving the retransfer that the NRC had concerns regarding this case and intended to provide comments. The NRC staff believes that the retransfer request should have been considered a subsequent arrangement as defined in the NNPA. As we informed DOE and State Department representatives in a Commission meeting held to discuss this case on September 9, this is particularly troubling in light of the potential proliferation significance of the case and the fact that a number of NRC staff questions on comparable NRC-licensed commodities for Argentina have yet to be answered

by the Executive Branch. In responding to NRC's concerns, Mr. George Bradley, DOE's Acting Assistant Secretary for International Affairs, acknowledged that the request was processed in an irregular manner and indicated regret for the lack of consultation. The Commission was not fully satisfied with Mr. Bradley's explanation of the reasons for the Department's failure to consult with NRC in the heavy water retransfer case. Nevertheless, the Commission appreciates the commitments made by Mr. Bradley during the meeting to take steps needed to assure that this situation will not be repeated in the future.

In this connection, the Commission has received proposed revisions to the interagency review procedures which, inter alia, provide for detailed consultation with NRC with respect to retransfers of nuclear commodities covered by Section 109b. of the Atomic Energy Act, as amended. We will review these proposed revisions and provide the Executive Branch with our comments in the near future. We also appreciate Mr. Bradley's assurances that while the interagency procedures remain under review, DOE will treat future retransfers as if the relevant portions of the proposed revisions were in effect.

The Commission appreciates DOE's assistance in addressing this matter and we look forward to improved cooperation with the Department and other interested Executive Branch agencies in discharging our responsibilities on nuclear export matters.

Sincerely,

Original signed by
Nunzio J. Palladino

Nunzio J. Palladino

cc: Ambassador Richard T. Kennedy
State Department

APPENDIX 13

LETTER FROM NRC CHAIRMAN PALLADINO TO CHAIRMAN ZABLOCKI CONCERNING NRC COMMENTS ON H.R. 1417

Chairman,
United States Nuclear Regulatory Commission,
Washington, D.C., June 28, 1983

The Honorable Clement J. Zablocki, Chairman
Committee on Foreign Affairs
United States House of Representatives
Washington, D.C. 20515

Received
JUL 1983
Committee on Foreign

Dear Mr. Chairman:

This responds to your letter of May 3, 1983 in which you requested the Nuclear Regulatory Commission's views on the Nuclear Nonproliferation Policy Act of 1983, H.R. 1417. Titles I, IV and VI of the bill do not directly affect NRC's activities and therefore the Commission has no comments on those provisions.

Title II directly affects the NRC because, among other things, it would require the Commission to make certain findings before it issues a license authorizing the export of highly-enriched uranium (HEU). The Commission has long supported the basic intent of Title II, which is to minimize the use abroad of HEU as a research reactor fuel. Several aspects of the proposed statutory requirements have, in effect, already been implemented by the Executive Branch and the Commission. For example, the U.S. Department of Energy has prepared analyses on which foreign research reactors can be converted to use a lower enriched fuel, (LEU) and several countries (e.g. Japan, the Federal Republic of Germany and Brazil) have committed to use lower enriched fuel in their research reactors. A number of other countries are actively studying conversion to the use of lower fuel enrichments through participation in the U.S. reduced enrichment development program. As a result of these efforts to minimize use of HEU, the NRC expects a significant reduction in the number of U.S. exports of HEU in the coming years. Consequently, the Commission does not believe at this time that any additional significant nonproliferation benefits would be gained if Title II is enacted into law. Further detailed comments regarding Title II are enclosed.

Commissioner Gilinsky believes that Title II would help ensure that HEU is treated as a nuclear explosive material whose misuse could seriously affect our national security. All civilian reactors, both foreign and domestic, which are fueled with this material should be encouraged to convert to LEU as rapidly as possible.

Title III would revise Section 131.b of the Atomic Energy Act to provide the Commission with, in effect, a formal concurrence responsibility for proposed subsequent arrangements involving the reprocessing of U.S.-origin spent fuel or the retransfer of over 500 grams of separated plutonium. (Specifically the Commission would be required to confirm separately the broad judgments of the Departments of Energy and State that such reprocessing or retransfer will not result in a significant increase of risk of proliferation.) The Commission recognizes the inherent proliferation dangers of plutonium and, in particular, is concerned about the difficulties involved in developing adequate safeguards

mechanisms for this material. Under present law, the Commission only "consults" on Executive Branch agency judgments made in connection with approving subsequent arrangements. Under the new provision in the bill, the Commission would be required, in effect, to "concur" in such judgments. A shortcoming of this provision is that it provides no mechanism to resolve differences, should the Commission and the Executive Branch disagree in their respective judgments. A positive feature of the new provision is that it would give NRC judgments more significance and would roughly approximate our role in nuclear export licensing matters.

Commissioner Gilinsky believes that, in view of the danger posed by separated plutonium, subsequent arrangements involving the reprocessing of U.S.-origin spent fuel or the retransfer of separated plutonium should be reviewed by the NRC, as specified in Title III. Since the paramount concern with regard to nuclear exports is national security, Commissioner Gilinsky strongly supports the provisions of Title IV which give the Secretary of Defense a central role in deciding upon proposed Agreements for Cooperation, exports of production or utilization facilities or source or special nuclear material, and upon proposed subsequent arrangements.

Title V would prohibit the NRC from licensing the export of essential reprocessing components. The Commission has no comments on the merits of this proposal. While no such exports have ever been made from the United States, we understand that the Executive Branch is considering the future approval of exports to Japan's proposed new reprocessing facility. Significant U.S. support for this activity would, of course, be precluded under the proposed Section 134 of the Atomic Energy Act.

Commissioner Ahearne and I regret that the bill does not address whether the NRC must consider adequacy of IAEA safeguards and how adequacy is to be defined. Note that §127 of proposed H.R. 6318 would have done so. (See page 4 of attached July 22, 1982 letter.)

Sincerely,

Nunzio J. Palladino

Nunzio J. Palladino

Enclosures:
As stated

cc: Rep. William S. Broomfield

ADDITIONAL NRC COMMENTS ON TITLE II OF H.R. 1417, THE NUCLEAR NON-PROLIFERATION POLICY ACT OF 1983.

Section 136 would require the Commission, before authorizing the export of HEU, to determine that: (1) there is no alternative nuclear reactor fuel available which could be used, and the reactor could not use fuel of lower enrichment than that proposed; (2) the proposed recipient has provided assurances that when alternative reactor fuel becomes available, it will use that fuel in lieu of HEU; and (3) the Executive Branch is taking the necessary steps to develop an alternative fuel. While not making the formal determinations called for by this section, the Commission under its current procedures does consider these same matters before deciding to license an HEU export. Commissioners Ahearne and Asselstine believe that this section essentially codifies existing Executive Branch and Commission policy review practices regarding HEU exports. However, the requirements for formal determinations in Sections 136(1) and 136(3) could prove difficult to implement since many of the judgements involved would be subjective. Furthermore, in view of past sensitivities abroad regarding the unilateral imposition of U.S. nonproliferation requirements, some foreign governments are likely to be concerned about possible delays resulting from implementation of the proposed requirements, and may resist providing the U.S. with the formal assurances that Section 136(2) would require. Commissioner Gilinsky does not agree with the Commission's comments in this section.

Section 137 would require the Commission, after consulting with the Secretary of State, to determine a kilogram limit on the amount of HEU of U.S. origin, in the form of fresh or spent fuel, that will be allowed in each foreign country and at each reactor site within each country. These limitations would be applied in acting upon applications covering proposed exports of HEU. This provision is apparently

designed to provide the Commission with pre-determined, easily understood guidelines for reviewing each HEU export application. Currently, DOE's Argonne National Laborator prepares a comprehensive analysis of each significant HEU export license application, which, among other things, analyzes the need for the requested quantity of material. This case-by-case approach is necessary since the quantity of U.S.-supplied HEU that is actually justified in a particular country can vary widely due to such factors as: (1) fuel fabrication requirements; (2) fuel loading schedules; (3) spent fuel storage capacity; (4) changing reactor operating characteristics; and (5) spent fuel reprocessing arrangements. Accordingly, a kilogram limit approval is a rather crude means for determining appropriate export quantity limits to specific countries in widely differing circumstances. In addition, because of the complex calculations involved and the large number of recipient facilities, determining kilogram limits would impose a significant administrative burden on the NRC staff and would probably require considerable negotiation with the Department of State. Commissioner Gilinsky does not agree with the Commission's comments in this section.

Section 138 provides that the Commission and the Executive Branch shall support efforts to improve physical security arrangments for the export of HEU, in particular the "TRANSEAVER Program." The Commission has no objection to this section, providing no additional NRC resources are required.

Section 139 provides that within three months after the enactment of H.R. 1417, the Secretary of Energy, after consultation with the Secretary of State, shall submit to Congress a plan with respect to the development and the use in foreign reactors of lower enrichment alternative fuels. As noted in our letter, the Commission has long supported efforts to develop and utilize alternatives to HEU and therefore has no objection to this provision. We note, however, that Section 139 does not state that U.S. research reactors should also convert to low enriched uranium, wherever possible. Without such a parallel statement, H.R. 1417 may be viewed abroad as being unfair and discriminatory. NRC is actively reviewing the

most expeditious means to achieve conversion of NRC-licensed reactors. To our knowledge, no comparable effort exists with respect to the U.S. research reactors operated by the Department of Energy.

Section 140 defines terms used in Title II. Those definitions are satisfactory from the Commission's standpoint.

33-516 O—84——17

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

CHAIRMAN

July 22, 1982

The Honorable Clement Zablocki, Chairman
Committee on Foreign Affairs
United States House of Representatives
Washington, D.C. 20515

Dear Mr. Chairman:

This responds to your June 18, 1982 request for the Nuclear Regulatory Commission's views on H.R. 6318. This bill, which proposes major changes in U.S. law and policy regarding proliferation-sensitive nuclear activities abroad, addresses several areas which have been the subject of Commission interest for several years. Since the proposed changes would directly affect the Commission's export licensing responsibilities, it is appropriate that we provide comments on their impacts, bearing in mind that the Congress and the Executive Branch have the primary responsibility regarding the formulation of new statutory and policy initiatives in the nuclear export area.

The first major provision of H.R. 6318 would amend Section 402(b) of the Nuclear Non-Proliferation Act of 1978 (NNPA) to ban the export of major critical components and technology for reprocessing, enrichment or heavy water production facilities. The Commission has no comments on the merits of this proposal. While no such exports have ever been made from the U.S., we understand that the Executive Branch is considering the future approval of U.S. exports to Japan's proposed new reprocessing facility and to Australia's proposed uranium enrichment project. Significant U.S. support for these activities would, of course, be precluded under the proposed amendment to Section 402(b).

A second major provision of H.R. 6318 would prohibit U.S. approval of reprocessing or major plutonium retransfer subsequent arrangements until Congress finds that: (1) effective international safeguards (providing timely warning of diversion) would be applied; and (2) adequate international sanctions to deter diversions of material have been established.

With respect to the first proposed finding, the Commission's March 2, 1982 letter to Representative Ottinger responding to safeguards-related questions noted the significant technical difficulties in safeguarding large-scale reprocessing facilities and our inability to count on

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inspection alone to provide timely warning of diversion of separated plutonium to weapon use if the necessary preparatory work has been done. We believe that problems such as these would make it very difficult for Congress to make the proposed finding. The U.S. Government and the IAEA, with NRC support, are continuing their efforts to improve safeguards capabilities to correct existing deficiencies in this area. At the same time, the Commission recognizes that IAEA safeguards cannot be solely relied upon to provide assurances that weapons-grade material has not been diverted. Information from non-IAEA sources and the nonproliferation credentials of the country involved and its relationship to the U.S. also play a large role in determining whether or not U.S. approvals for the reprocessing or use of sensitive materials are granted. The existing statutory provisions of Section 131.b. of the Atomic Energy Act provide that "reprocessing or retransfer will take place under conditions that will ensure timely warning to the U.S. of any diversion ...." This formulation permits the reviewing agencies to consider both IAEA safeguards adequacy and other relevant factors, including very sensitive intelligence information, in connection with reprocessing and retransfer decisions.

With respect to the second proposed finding regarding sanctions, the Commission shares a concern regarding the importance of clearly defined and effective sanctions against violations. However, we note the significant practical difficulties in reaching a broad international consensus in this area.

The third major provision of H.R. 6318 would add a new Section 133 to the Atomic Energy Act which would transfer authority over nuclear retransfers to NRC and increase U.S. statutory controls over retransfers to cover such activities as brokering. It is possible that transferring additional authority to NRC could dilute the Commission's attention to the primary health and safety issues encountered in regulating the U.S. nuclear industry. Thus this transfer may not be in the overall national interest. Nevertheless, the Commission believes that the factors involved in reviewing retransfer requests are essentially identical to those involved in the review of the initial export licensing requests and notes that, while other factors would be involved in such a decision, administratively consolidating in one agency the authority to control both export and retransfer activities would not be unprecedented. The Department of Commerce exercises control over the export and

retransfer of non-nuclear commodities. In any event, the wording of §133(a) and (b) would be unworkable: an NRC license shall be required for "any activity which . . . . indirectly assists in any way . . . ." This is too broad to be manageable.

With regard to the proposed expansion of the scope of the U.S. Government's control over transfers outside the U.S., the Commission agrees that some changes to current practice may be warranted. Both the Department of Energy and the State Department have recently agreed to expand existing U.S. control mechanisms under 10 CFR Part 810 regarding foreign nuclear activities by U.S. firms or individuals. It is our understanding that there is already an adequate statutory basis for changing DOE's regulations and, accordingly, it may not be necessary to adopt any statutory amendments. The Commission, under the provisions of Section 57.b. of the Atomic Energy Act, will be consulted regarding the proposed amendments to Part 810 and intends to support those changes which would further tighten DOE's Part 810 controls so that they coincide with the export controls on nuclear material and equipment exercised by the Commission under 10 CFR Part 110. In connection with this review we will examine closely the merits of extending Part 810 controls to cover such activities as brokering by U.S. firms.

The final provision in H.R. 6318 would amend Section 127 of the Atomic Energy Act to require that the IAEA safeguards to be applied with respect to nuclear exports will be adequate to provide "timely warning to the U.S. of any diversion ... of special nuclear material" prior to the time it could be converted into a nuclear explosive device. This relates to the technical objective of IAEA NPT-type safeguards agreements, which is to assure the "timely detection of diversion of significant quantities of nuclear material...." However, the ability to meet this objective depends on how "timely detection" and "significant quantity" are defined. At the present time, the IAEA-defined goals are not being met at all facilities because of technological, legal, and resource constraints, and operational problems. This provision of H.R. 6318 is similar to the current wording of the NNPA (§131b(2)) which is that "foremost consideration. . . under conditions that will ensure timely warning to the United States. . ." (emphasis added). However §131b(2) allows consideration of the very sensitive intelligence information and the US-other country relations. The

proposed language for §127 restricts the finding to IAEA safeguards, which cannot provide such information.

As you are aware, Congress has never clarified its intent regarding the issue of "adequacy" with respect to the export licensing safeguards criterion. The proposed amendment to Section 127 would provide such a clarification. In this regard, it should be noted that the provision, as drafted, would not give the Commission the discretion to license exports where it could not make a positive finding, on a case-by-case basis, that IAEA safeguards were adequate to provide "timely warning of diversion." This would, in effect, stop exports unless the NRC were to obtain sufficient detailed safeguards information to be assured that the criterion is met. It should be noted that there are instances, particularly in nations with good nonproliferation credentials, where the U.S., through means other than IAEA safeguards, has adequate assurance against diversions. Arrangements to obtain the detailed information would have to be made with the importing country, since sufficient detailed information would not be available through the current IAEA system. Another possibility would be to request fundamental changes to current IAEA practices regarding the dissemination of safeguards information and information collected.

Commissioner Ahearne expresses appreciation for Congress finally explicitly addressing the question of whether the Commission must consider adequacy of IAEA safeguards and how adequacy is to be defined.

We appreciate the opportunity to comment on the proposed legislation.

Sincerely,

Nunzio J. Palladino

Nunzio J. Palladino

APPENDIX 14

LETTER FROM NRC CHAIRMAN PALLADINO TO CHAIRMAN ZABLOCKI CONCERNING NRC COMMENTS ON H.R. 3058

Chairman,
United States Nuclear Regulatory Commission,
Washington, D.C., September 1, 1983

The Honorable Clement J. Zablocki, Chairman
Committee on Foreign Affairs
United States House of Representatives
Washington, D.C. 20515

Dear Mr. Chairman:

This responds to your letter of June 15 in which you requested the Commission's views on the Nuclear Explosives Control Act of 1983, H.R. 3058.

The Commission recognizes that the recent Supreme Court decision on the legislative veto may affect several of the provisions of H.R. 3058, particularly the proposed new legislative review provisions regarding nuclear export activities under the authority of the Executive Branch (e.g., nuclear technology exports and Commerce Department dual-use exports).

The Commission's detailed section-by-section comments on H.R. 3058 are contained in the enclosure to this letter. We have, as in the past, focused our comments on those provisions directly affecting the Commission, bearing in mind that the Congress and the Executive Branch have the primary responsibility for the formulation of new statutory and policy initiatives in the nuclear export area.

We appreciate the opportunity to comment on the proposed legislation.

Sincerely,

Nunzio J. Palladino

Nunzio J. Palladino

Enclosure:
Section-by-Section Comments
on H.R. 3058

Section-by-Section Commission Comments
on H.R. 3058

Section 1: Title

Section 2: Findings. No Commission comments.

Section 3: Purposes. No Commission comments.

Section 4: This section would amend Section 402(b) of the Nuclear Non-Proliferation Act of 1978 (NNPA) to ban the export of major critical components and technology for reprocessing, enrichment or heavy water production facilities. The Commission has no comments on the merits of this proposal. While no such exports have ever been made from the U.S., we understand that the Executive Branch is considering the future approval of U.S. exports for Japan's proposed new reprocessing facility. Significant U.S. support for this activity would, of course, be precluded under the proposed amendment to Section 402(b).

Section 5: This section would limit reprocessing and plutonium retransfer subsequent arrangements to those involving existing reprocessing facilities and for research, development or demonstration purposes only, until Congress finds that: (1) effective international safeguards (providing timely warning of diversion) would be applied; and (2) adequate international sanctions to deter diversions of material have been established.

With respect to the first proposed finding, the Commission's March 2, 1982 letter to Representative Ottinger, responding to safeguards-related questions, noted the significant technical difficulties in safeguarding large-scale reprocessing facilities and our inability to count on inspection alone to provide timely warning of diversion of separated plutonium to weapons use if the necessary preparatory work has been done. Commissioner Asselstine believes that problems such as these would make it very difficult for Congress to make the proposed finding. The U.S. Government (with NRC support) and the IAEA are continuing their efforts to improve safeguards capabilities to correct existing deficiencies in this area. At the same time, the Commission recognizes that IAEA safeguards cannot be solely relied upon to provide assurances that weapons-grade material has not been diverted. Information from non-IAEA sources, the nonproliferation credentials of the country involved and its relationship to the U.S. also play a large role in determining whether or not U.S. approvals for the reprocessing or use of sensitive materials are granted. The existing statutory provision of Section 131b.(2) of the Atomic Energy Act provides that "foremost consideration

will be given to whether or not the reprocessing or retransfer will take place under conditions that will ensure timely warning to the U.S. of any diversion...." This formulation permits the reviewing agencies to consider both IAEA safeguards adequacy and other relevant factors, including very sensitive intelligence information, in connection with reprocessing and retransfer decisions.

With respect to the second proposed finding regarding sanctions, the Commission shares a concern regarding the importance of clearly defined and effective sanctions against violations. However, we note the significant practical difficulties in reaching a broad international consensus in this area.

Section 6: This section provides for additional requirements which must be met prior to the approval of future HEU export license applications. Before approving such exports, the Commission would be required to determine that: (1) there is no alternative nuclear reactor fuel available which could be used, and the reactor could not use fuel of lower enrichment than that proposed; (2) the proposed recipient has provided assurances that when alternative reactor fuel becomes available it will use that fuel in lieu of HEU; and (3) the Executive Branch is taking the necessary steps to develop an alternative fuel. While not making the formal determinations called for by this section, the Commission under its current procedures does consider these same matters before deciding to license an HEU export. The first and the third determinations listed, however, could prove difficult to implement since many of the judgments involved would be subjective. Furthermore, in view of past sensitivities abroad regarding the unilateral imposition of U.S. nonproliferation requirements, some foreign governments are likely to be concerned about possible delays resulting from providing the U.S. with the formal assurances required by the second determination. This ultimately could be counterproductive to U.S. nonproliferation policy objectives.

A further provision of Section 6 would require the Commission, after consulting with the Secretaries of State and Energy, to determine a kilogram limit on the amount of HEU of U.S. origin, in the form of fresh or spent fuel, that will be allowed in each foreign country and at each reactor site within each country. These limitations would be applied in acting upon applications covering proposed exports of HEU. This provision is designed apparently to provide the Commission with pre-determined, easily understood guidelines for reviewing each HEU export application. Currently, DOE's Argonne National Laboratory prepares a comprehensive analysis of each significant HEU export license application which, among other things, analyzes the

need for the requested quantity of material. This case-by-case approach is necessary since the quantity of U.S.-supplied HEU that is actually justified in a particular country can vary widely due to such factors as: (1) fuel fabrication requirements; (2) fuel loading schedules; (3) spent fuel storage capacity; (4) changing reactor operating characteristics; and (5) spent fuel reprocessing arrangements. Accordingly, a kilogram limit approval is a rather crude means for determining appropriate export quantity limits to specific countries in widely differing circumstances. In addition, because of the complex calculations involved and the large number of recipient facilities, determining kilogram limits would impose a significant administrative burden on the NRC staff.

A final provision of Section 6 provides that within three months after the enactment of H.R. 3058, the President, in consultation with the Secretary of State, shall submit to Congress a plan with respect to the development and the use in foreign reactors of lower enrichment alternative fuels. The Commission has long supported efforts to develop and utilize alternatives to HEU and therefore has no objection to this provision. We note, however, that this section does not state that U.S. research reactors should also convert to low enriched uranium, wherever possible. Without such a parallel statement, H.R. 3058 may be viewed abroad as being unfair and discriminatory. NRC is actively reviewing the most expeditious means to achieve conversion of NRC-licensed reactors. To our knowledge, no comparable effort exists with respect to the U.S. research reactors operated by the Department of Energy.

Commissioner Gilinsky believes that Section 6 would help ensure that HEU is treated as a nuclear explosive material whose misuse could seriously affect our national security.

Section 7: This Section modifies requirements for reviewing certain subsequent arrangements under the Energy Department's authority. The Commission has no comments on this Section.

Section 8: Paragraph (a)(1)(c) of this section would authorize the issuance by NRC of "life-of-reactor" export licenses for low-enriched fuel exports to countries agreeing to forego reprocessing and enrichment activities and utilization of separated plutonium or plutonium-based fuels.

The Commission currently has authority to issue long-term LEU fuel export licenses and has issued several, typically valid for five reloads, for facilities in countries sharing U.S. non-proliferation objectives. Longer term licenses could be issued, but little foreign interest has been shown in such licenses and it is thus doubtful if "life-of-reactor"

licenses would provide any additional incentives for foreign countries to adopt improved nonproliferation policies or to accept the fuel cycle constraints proposed by Section 8. Should this provision be enacted, the Commission does not anticipate any difficulties in complying with the annual license review requirement which would be imposed.

The Commission has no comments on the other portions of this Section as they do not directly affect the NRC.

Section 9: Funding authorization. The Commission has no comments on this section.

Section 10: Funding authorization. The Commission has no comments on this section.

Section 11: This section calls for additional support for efforts by NRC and other agencies to improve physical security arrangements for nuclear exports. The Commission has no objection to this section as long as adequate funding is provided by the Congress.

Section 12: Technical amendment. No Commission comments.

Section 13 and 14: These sections modify requirements for reviewing nuclear technology exports under the Energy Department's authority. The Commission has no comments on these sections.

Section 15: This section modifies requirements for the Defense Department's review of nuclear export-related activities. The Commission has no comments on this section.

Since the paramount concern with regard to nuclear exports is national security, Commissioner Gilinsky strongly supports Section 15 which gives the Secretary of Defense a central role in deciding upon proposed Agreements for Cooperation, exports of production or utilization facilities or of source or special nuclear material, and upon proposed subsequent arrangements.

Section 16: This section modifies requirements for reviewing the Commerce Department's licensed nuclear-related exports. The Commission has no comments on this section.

Section 17: This section would subject NRC-licensed component and material exports to the additional export licensing criteria in Sections 127 and 128 of the Atomic Energy Act and also require that the importing country have an agreement for cooperation. While past licensing actions involving these commodities indicate that almost all exports would have met the additional proposed licensing criteria, it should be

noted that many involved exports of minor quantities of material (e.g., small amounts of heavy water) for nonnuclear end-uses. Some of the importing countries for these minor exports do not have agreements for cooperation with the U.S. and, accordingly, Section 17 would essentially preclude such exports.

Section 18: This section would increase U.S. statutory controls, including requiring an NRC license, with respect to additional international nuclear activities. These activities include those involving foreign affiliates of U.S. firms which transfer nuclear material and equipment not currently controlled by the U.S. and which thus escape the export control provisions of the NNPA.

The Commission shares the concern that certain foreign nuclear activities of affiliates of U.S. firms could, in the future, conflict with the U.S. Government's nonproliferation objectives. However, the Commission notes the practical difficulties of administratively implementing the proposed new requirements. In particular, the wording of proposed §134(a) and (b) would be unworkable since requiring an NRC license for "any activity which directly or indirectly assists in any way the transfer or retransfer, outside the U.S., of any [nuclear material, equipment or technology]..." is too broad to be manageable.

Section 19: This section would subject certain Commerce Department licensed nuclear-related exports and Energy Department authorized nuclear technology exports to the restrictions of Section 129 of the Atomic Energy Act. The Commission has no comments on this section.

APPENDIX 15

LETTER FROM DEPARTMENT OF STATE TO CHAIRMAN ZABLOCKI CONCERNING DEPARTMENT OF STATE COMMENTS ON H.R. 1417

United States Department of State,
Washington, D.C., July 14, 1983

The Honorable Clement J. Zablocki, Chairman
Committee on Foreign Affairs
House of Representatives

Dear Mr. Chairman:

Thank you for your letter of April 22 to Secretary Shultz, requesting Executive branch comments on H.R. 1417, a bill "to promote the nuclear nonproliferation policies of the United States."

H.R. 1417 is identical (except for the date in section 1) to H.R. 6032, which was introduced during the 97th Congress, as reported out of committee last December and subsequently renumbered H.R. 7430. Administration views in opposition to H.R. 1417 are identical to those we expressed on that version of H.R. 6032 last year. A copy of our letter commenting on the final version of H.R. 6032, dated December 15, 1982, is enclosed for your convenience.

The Office of Management and Budget advises that from the standpoint of the Administration's program there is no objection to the submission of this report.

With cordial regards.

Sincerely,

Powell A. Moore
Assistant Secretary
for Legislative and
Intergovernmental Affairs

Enclosure: Copy of December 15, 1982 Letter

DEPARTMENT OF STATE

Washington, D.C. 20520

DEC 15 1982

Dear Mr. Chairman:

As requested by the Committee during markup of the Bingham substitute for H.R. 6032, I am pleased to provide Executive Branch comments for inclusion in the record.

The Administration strongly opposes this legislation for the reasons detailed below. The additional controls it would impose on nuclear cooperation and trade are unnecessary and undesirable, and would have the effect of making our nuclear export and non-proliferation policy even more difficult to manage, without significant corresponding non-proliferation benefits. In addition, the modifications to the Atomic Energy Act (AEA) and Nuclear Non-Proliferation Act (NNPA) proposed in this bill would seriously undermine our efforts to restore the position of the United States as a predictable and stable nuclear trading partner and to convince foreign countries that they may deal confidently with the United States. Major revisions to the substantive and procedural rules that apply to key U.S. nuclear export activities, after the major changes in U.S. nuclear export law and policy in recent years, would reduce still further the role and influence of the United States in international nuclear affairs, and seriously injure our non-proliferation efforts.

Section 2 of H.R. 6032 would have the Congress make a number of findings. We acknowledge that efforts need to continue to improve the present international safeguards system. This is being taken into account in the Administration's reassessment of the IAEA. The Administration believes that utmost caution and restraint must be exercised in the supply of any sensitive nuclear technologies (enrichment, reprocessing and heavy water production) to non-nuclear-weapon states. Nevertheless, in matters of non-proliferation, just as in other aspects of foreign policy, concrete distinctions have to be made between cases where the export of such technology presents a proliferation risk and where it does not. President Reagan has stated that the United States will not inhibit civil reprocessing and breeder development in countries with advanced nuclear programs where these activities are not a proliferation

The Honorable
Clement J. Zablocki, Chairman,
Committee on Foreign Affairs,
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risk. This policy recognizes that Japan and the EURATOM countries believe that such advanced fuel cycle activities are needed for their energy security.

Title I of H.R. 6032 would modify both the procedural and substantive rules that currently apply to technology exports under section 57 b. of the AEA. Section 102 of the bill would require fifteen days pre-publication in the Federal Register of any authorization under section 57 b. of the AEA and inclusion in the report under section 601(a) of the NNPA of a detailed description of authorizations pursuant to section 57 b. While these provisions could present technical difficulties because proprietary information may be involved, the main difficulty with them is that they would be likely to be seen abroad as further changes in U.S. conditions of nuclear supply, evidencing the continuing instability of U.S. nuclear law and procedures.

Section 103 of H.R. 6032 would require that no export of nonsensitive nuclear technology be authorized unless the Secretary of Energy found that the export criteria in sections 127 and 128 of the AEA are met. Similarly, section 601 of H.R. 6032 would amend section 128 of the AEA to require that, prior to Department of Commerce licensing of items proposed to be exported for, or likely to be used in, a nuclear end use, the Secretary of Energy determine that the recipient state has met the criteria set forth in sections 127 and 128. These criteria currently apply to exports of source or special nuclear material, production or utilization facilities, and of sensitive nuclear technology. These proposals would discard the legal framework that currently exists in the NNPA and AEA, which was carefully tailored to provide varied levels of control for each type of item or activity based on its proliferation sensitivity and would establish instead a new regime of the utmost rigidity. These proposals would instead extend sweeping controls to nonsensitive technology and Commerce-licensed exports. There is no convincing non-proliferation justification for such a step. Further, U.S. companies would be eliminated from many areas of nuclear commerce, and to the advantage of foreign suppliers. With respect to technology exports, the Department of Energy has recently published proposed revisions to 10 CFR Part 810 which will allow the U.S. to review any proposed export of unclassified U.S. nonsensitive nuclear technology to non-nuclear-weapon states which do not meet the criterion in section 128, and to deny such exports where the interests of the United States so require (47 Fed. Reg. 41320-27). It is anticipated that these regulations will be made effective in the imminent future.

Sections 103 and 601 would permit the President to authorize activities otherwise precluded subject to the requirements and conditions set forth in the third and fourth sentences of section 126 b.(2) of the AEA. In other words, such Presidential findings would purportedly be made subject to Congressional concurrent resolution veto. From a constitutional perspective, this provision and others in H.R. 6032 like it are invalid because they violate the constitutional procedures for exercising legislative power binding on the President, including the requirement of presentment to the President and the basic principle of separation of powers. The Congress already has ample legislative and oversight authority to provide direction to U.S. policy-makers in this area.

Section 104 of H.R. 6032 would preclude the export of nonsensitive nuclear technology in the event that the proposed recipient country engaged in any conduct resulting in termination of nuclear exports under section 129 of the AEA. Section 602 of the bill would preclude the issuance of validated licenses by the Department of Commerce "for the export of goods or technology which are to be used (or which in the judgment of the Secretary of Commerce are likely to be diverted for use) in any production or utilization facility" in a state covered by the prohibition in section 129 of the Atomic Energy Act. We believe these provisions would serve no useful purpose. Section 129 sanctions relate to exports that are of major importance to a recipient's nuclear program -- the prospective loss of which through a cut-off could hopefully deter the activities listed in section 129. However, nonsensitive nuclear technology -- concerning, for example, uranium mining -- and Commerce-licensed dual use items are of minor significance and no purpose would be served by including them as part of the statutorily mandated sanctions. Rather, case-by-case findings should be required. Even section 129 activities should not automatically preclude the U.S. from providing minor assistance, e.g., in the areas of health and safety, to safeguarded facilities. Further, the proposed revisions to 10 CFR Part 810 discussed above will allow consideration on a case-by-case basis of whether certain proposed transfers of unclassified nonsensitive nuclear technology should be authorized in circumstances where activities described in section 129 may be in question.

Title II of H.R. 6032 concerns exports of highly-enriched uranium. We agree that highly-enriched uranium is a material whose use must be carefully controlled and safeguarded. As you know, the Administration's policy reflected in the President's July 16, 1981, Non-Proliferation Statement, encourages the use of low-enriched fuels where feasible as well as restraint in the spread of sensitive nuclear material, equipment and

technology. This policy is reflected in procedures under which the Executive branch prepares an analysis of the technical and economic justification for the use of highly-enriched uranium (HEU) prior to recommendation approval of any license for its export. In addition, the reduced enrichment for research and test reactors (RERTR) program, which involves development of low-enriched fuels and which has received considerable support from foreign countries, promises in the future to reduce significantly the need for export of HEU. In our view, therefore, the substantive concerns of title II are already being fully addressed.

Moreover, we see a number of serious disadvantages to enactment of these provisions in addition to the basic problems noted above. They would compel the United States Government to second-guess the judgment of foreign nations on their own ability to take the technical, regulatory and licensing steps necessary to convert their facilities from HEU fuels, and on the desirability of doing so. The kilogram limit on fresh or spent HEU in each foreign country and at each reactor site in each such country is unworkable. We are concerned that these provisions could well result in a sharp reduction in the readiness of foreign governments to cooperate in the RERTR program and to implement its results and, conceivably, in foreign moves to start producing HEU once again because of uncertainty about U.S. supply. This obviously would not be in the non-proliferation interests of the U.S. Finally, research in this area has not yet fully examined the properties and behavior of alternative fuels, and we believe that a number of technical questions remain to be addressed before it can be stated that all legitimate reactor needs can be met with alternative reactor fuel.

Title II would amend the AEA to require the Nuclear Regulatory Commission both to oversee and to pass judgment on the adequacy of the Executive branch programs to develop alternative reactor fuels. Providing the NRC with such a role would unacceptably distort the relationship between the Commission and the Executive branch. In addition, the bill specifies that the President is to submit to Congress a plan with respect to the development and use in foreign reactors of alternative nuclear reactor fuels. We believe that there is no separate need for the submission of such a plan, as this matter can be handled in normal budgetary and oversight hearings.

Title III of H.R. 6032 deals with subsequent arrangements involving reprocessing. Section 301 of the bill would provide the NRC a veto over Executive branch decisions in this area. While the NRC is responsible for licensing the export of nuclear material, once that material is abroad further

transaction with regard to the material become questions of administration of an international agreement and relations with a foreign government; these questions have always been and are appropriately reserved to the Executive branch.

Section 302 of the bill would establish limitations and restrictions on the granting of what it defines as "programmatic approval" of reprocessing under U.S. agreements for cooperation. We believe the enactment of this provision would have a fundamentally unsettling effect on our allies in EURATOM and Japan. These provisions would modify and toughen the already stringent provisions that apply to subsequent arrangements concerning reprocessing under the law, and demonstrate again to these nations the instability of U.S. law and procedures, driving them further from dealing with the U.S. and disrupting negotiations currently underway. Further, these provisions are unnecessary. In testimony on September 9, 1982, Under Secretary of State Richard T. Kennedy made clear that the Administration intended to offer programmatic consent arrangements for reprocessing in the context of seeking new or amended peaceful nuclear cooperation agreements with Japan and EURATOM, which would be subject to Congressional review, and only after we make the determinations which would be required for a subsequent arrangement involving reprocessing under section 131 b.

Title IV of the bill would require that the Secretary of Defense make certain formal findings paralleling those made by the Secretaries of State and Energy in processing agreements for cooperation under section 123 of the AEA, nuclear exports under section 126 and subsequent arrangements under section 131. The Department of Defense participates in the interagency procedures developed to implement the NNPA, and has ample opportunity to make its views known in that process with respect to export license applications and subsequent arrangements. The procedures also establish a mechanism for disagreements to be raised and resolved. The Department of Defense participates in the formulation of major policy decisions with regard to agreements for cooperation. In sum, we do not believe Title IV of H.R. 6032 is necessary or desirable.

Title V deals with exports of reprocessing components and technology. Section 501 would insert a new section 134 in the AEA to preclude the export of "essential reprocessing components, sensitive reprocessing technology, and other assistance which is essential to nuclear fuel reprocessing" either under an agreement for cooperation or under authorization by the Secretary of Energy pursuant to section 57 of the AEA. We believe this provision would have significant

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detrimental impacts on the ability of the United States to influence any future reprocessing plants in a direction that reduces proliferation risks. In 1978, the NNPA established statutory standards and procedures for sensitive nuclear technology exports, including reprocessing technology exports. Additional stringent requirements apply under the London Nuclear Suppliers Group Guidelines. We agree that exports of reprocessing material, equipment and technology must be strictly limited, and that there should be as few reprocessing facilities as feasible, under effective international auspices and inspection. However, this does not mean that there will be no reprocessing facilities abroad. Reprocessing facilities already exist -- and will continue to be built -- in Japan and in the EURATOM countries. By cooperating with these countries we would expect to be able to work more effectively to influence the safeguards and physical security measures applied to new facilities. In particular, cooperation with our key allies can provide us the opportunity to work with them to minimize the proliferation risks associated with such facility, most importantly by designing plants to facilitate the application of safeguards.

Comments on the provisions in title VI of H.R. 6032 have been set forth above, in the discussion of sections 102, 103 and 104.

In conclusion, the Administration strongly opposes H.R. 6032 in its entirety. It would undermine the position and influence of the United States in international nuclear affairs and thereby seriously injure our non-proliferation efforts.

The Office of Management and Budget advises that from the standpoint of the Administration's program there is no objection to the submission of this report.

With cordial regards,

Sincerely,

Rowell A. Moore
Assistant Secretary for
Congressional Relations

APPENDIX 16

LETTER FROM DEPARTMENT OF STATE TO CHAIRMAN ZABLOCKI CONCERNING DEPARTMENT OF STATE COMMENTS ON H.R. 3058

United States Department of State,
Washington, D.C., September 14, 1983

The Honorable Clement J. Zablocki, Chairman
Committee on Foreign Affairs
House of Representaties

Dear Mr. Chairman:

This letter responds to your letter of June 15 requesting Administration views on H.R. 3058, a bill to amend the Nuclear Non-Proliferation Act of 1978 and otherwise promote the nuclear non-proliferation policies of the United States. The Administration strongly opposes this bill, and believes that its enactment would seriously undercut both our nuclear cooperation with other countries and the effectiveness of our policies directed against proliferation of nuclear explosives. Our comments on certain specific provisions of the bill follow.

Section 2 of the bill contains a number of findings. For reasons discussed below in connection with other specific provisions of the bill, we believe that many of these findings are inaccurate or incomplete and give a misleading picture of the facts relevant to consideration of this bill.

Section 4 would amend section 402(b) of the Nuclear Non-Proliferation Act of 1978 (NNPA) to forbid transfer of major critical components of facilities for, and sensitive nuclear technology or other assistance important to, enrichment of uranium or other isotopic separation of special nuclear material, reprocessing of nuclear fuel, or production of heavy water. This provision would impose an absolute ban on such transfers, without regard to the needs and national policies of the recipient or to the likelihood of misuse for nuclear explosives purposes. The Administration cannot accept the policy judgment which underlies this provision, that any use of these three technologies is so dangerous that the United States should never be associated with their transfer. We see no basis for concluding that close partners of the United States with a firm commitment to non-proliferation and a demonstrated technical and economic justification for using these industrial processes should be barred from access to them under appropriate stringent conditions. Moreover, these technologies are available from other sources, and often can be or have been developed indigenously by the countries which have approached the United States for cooperation in these fields following a national decision to pursue them. Section 4 would therefore have little or no impact other than to deny export opportunities to United States companies; effectively eliminate our ability to encourage development and use of these technologies in the most proliferation-resistant ways,

including incorporation of the most effective safeguards techniques; and sharply reduce our remaining influence in the nuclear field by demonstrating that our policies remain in an uncertain state of flux.

Section 5 would add a new section 132 to the Atomic Energy Act which would sharply limit approvals under section 131 of subsequent arrangements for reprocessing, or use or retransfer of plutonium resulting from reprocessing, of U.S.-origin special nuclear material or special nuclear material produced through the use of U.S.-origin material, equipment or sensitive nuclear technology. Approval would be permitted only for use in research, development or demonstration purposes for reprocessing; for use in a nuclear weapons state or one accepting full-scope safeguards and in a facility in operation or under construction when the bill was enacted; if no other stocks of plutonium is available; and if adequate physical security measures are maintained. The restrictions would be lifted only upon a finding by Congressional joint resolution that effective international safeguards would be applied to reprocessing and to separated plutonium and that effective international sanctions for violations of non-proliferation commitments have been established. Section 5 is based on a policy judgment that use of plutonium, particularly commercial use, is inherently and in all cases highly undesirable. While the use of plutonium should be and is closely regulated and monitored, this judgment is neither appropriate nor realistic, given that many of our cooperating partners have concluded that it is desirable and economic to use plutonium in their civil programs. It is our view that plutonium reprocessing and use are adequately controlled under the very rigorous provisions of existing statutes, and that a change in this area is not only unnecessary, but would be harmful to our non-proliferation efforts. It would severely damage our nuclear relationships with our close allies in western Europe and Japan and cripple our ability to work with them to strengthen the non-proliferation regime.

Section 6 would add to the Atomic Energy Act provisions prohibiting exports of highly enriched uranium except in cases where the NRC finds that the Executive is developing alternative reactor fuels, that no alternative reactor fuel is available and the recipient has agreed to use such alternative fuel when it may become available. It would require imposition by the NRC of a kilogram limit on the amount of U.S.-origin highly-enriched uranium to be allowed at any time in each foreign country and at each reactor site. We agree that highly-enriched uranium, like plutonium, is a material whose use must be carefully controlled and safeguarded. As you know,

the Administration's policy, reflected in the President's July 16, 1981, Non-Proliferation Statement, encourages the use of low-enriched fuels where feasible as well as restraint in the spread of sensitive nuclear material, equipment and technology. This policy is reflected in procedures under which the Executive branch prepares an analysis of technical and economic justification for the use of highly enriched uranium (HEU) prior to recommending approval of any license for its export. In addition, the reduced enrichment for research and test reactors (RERTR) program, which involves development of low-enriched fuels and which has received considerable support from foreign countries, promises in the future to reduce significantly the need for export of highly-enriched uranium. In our view, therefore, the substantive concerns of this provision are already being fully addressed.

Moreover, we see a number of serious disadvantages to enactment of these provisions, in addition to the basic problems noted above. They would compel the United States Government to second-guess the judgment of foreign nations on their own ability to take the technical, regulatory and licensing steps necessary to convert their facilities from highly-enriched fuels, and on the desirability of doing so. The kilogram limit on fresh or spent highly-enriched uranium in each foreign country and at each reactor site in each country is unworkable. We are concerned that these provisions could well result in a sharp reduction in the readiness of foreign governments to cooperate in the RERTR program and to implement its results. If such provisions were adopted foreign governments might, in fact, be encouraged to start producing highly-enriched uranium once again because of uncertainty about U.S. supply. This development obviously would not be in the non-proliferation interests of the United States. Finally, research in this area has not yet fully examined the properties and behavior of alternative fuels, and we believe that a number of technical questions remain to be addressed before it can be stated that all legitimate reactor needs can be met with alternative reactor fuel.

Section 7 would forbid approval of any subsequent arrangement for reprocessing or retransfer for reprocessing of special nuclear material or for retransfer of plutonium resulting from reprocessing, unless the requesting country or countries agreed not to substitute or exchange without U.S. approval material not subject to the NNPA for material subject to the NNPA, and to accept the same controls on the substituted material as on the original material. Substitution is a well-established element of the international nuclear non-proliferation system, and represents a reasonable and

appropriate balancing of the need to maintain controls over exported materials and the economies which can often be achieved by used material already at a particular destination. Use of the principle can also reduce physical transfers of nuclear material and the health, safety and environmental risk which flow from transporting such substances. There are certainly occasions on which substitution can be used so as to reduce controls, but these situations can be dealt with far more effectively on a case-by-case basis rather than by imposing a range of U.S. controls on new quantitites of material in every case, no matter how appropriate and innocent. The Executive branch is aware of the occasional problem, and is generally able to respond to such problems within the scope of existing authority to disapprove particular transfers.

Section 8 would provide incentives for countries committing themselves to the use of low-enriched fuel in all their power reactors, including enrichment services at or below the price charged to U.S. Government customers; an additional discount for use of "improved power reactor fuel" meeting certain criteria; lifetime export authorizations for fuel for reactors in countries using only low-enriched fuel; and technical cooperation and assistance to increase fuel efficiency of light water reactors, encourage use of improved nuclear fuels, resolve spent fuel storage and disposal problems, and develop nonnuclear energy resources. For purposes of providing such incentives, the provisions of section 161(v) of the Atomic Enegy Act of 1954 would largely be waived. The Department of Energy would be required to prepare a program to implement the incentives provided in section 8. We defer to the Department of Energy and other more directly involved agencies for specific comment on this provision.

Sections 13 and 14 would permit authorizations under section 57(b) of the Atomic Energy Act only if an agreement for cooperation with the country in question were in effect, and if all the criteria in sections 127 and 128 had been met. Sections 16 and 17 would impose similar requirements on exports of items on the Nuclear Referral List and components, respectively. These proposals would discard the legal framework of the NNPA and Atomic Energy Act, which was carefully tailored to provide varied levels of control for each type of item or activity based on its proliferation sensitivity, and would establish instead a new regime of the utmost rigidity. There is no convincing non-proliferation justification for imposition of such sweeping controls. Further, U.S. companies would be eliminated from many areas of commerce, to the advantage of foreign suppliers. This would

include a broad range of dual-use items, such as many types of computers and advanced machine tools. With respect to technology exports, the Department of Energy has recently brought into force revisions in 10 CFR Part 810 which allow it to review any proposed export of unclassified U.S. non-sensitive nuclear technology to non-nuclear weapon states not meeting the criterion in section 128, and to deny such exports where the interests of the United States so require.

Section 15 would require that the Secretary of Defense make certain formal findings paralleling those made by the Secretaries of State and Energy in processing agreements for cooperation under section 123 of the Atomic Energy Act, nuclear exports under section 126 and subsequent arrangements under section 131. The Department of Defense participates in the interagency procedures developed to implement the NNPA, and has ample opportunity in that process to make its views known with respect to export license applications and subsequent arrangements. The procedures also establish a mechanism for disagreements to be raised and resolved. The Department of Defense participates in the formulation of major policy decisions with regard to agreements for cooperation, and may be asked to provide its views on whether the provisions of a proposed agreement for cooperation are sufficient to ensure that exports under that agreement will not be inimical to or constitute an unreasonable risk to the common defense and security. In sum, we do not believe the provisions of Section 14 are either necessary or desirable.

Section 18 would extend the controls of the NNPA on exports to all persons subject to U.S. jurisdiction, including in particular foreign affiliates of U.S. corporations. Although the United States clearly has the legal authority to extend such controls, this proposal raises extremely complex and controversial issues, including the extraterritoriality concept which has caused great political difficulties recently between the U.S. and other nations. We believe an attempt to extend controls in this manner would generate enormous resentment on the part of the foreign countries whose cooperation in non-proliferation is most critical to a successful and effective non-proliferation regime, and would undermine rather than support U.S. non-proliferation goals.

Section 19 would modify section 129 of the NNPA, so that a cutoff of nuclear trade would come into effect unless the President determined, and Congress agreed by concurrent resolution, that exports should not be terminated. This would partially reverse the current statutory structure, under which the Congressional action is limited to disapproval by

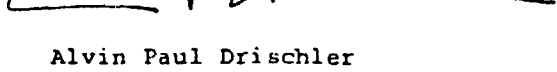
concurrent resolution of a Presidential decision not to terminate exports. This provision clearly constitutes an unconstitutional attempt to exercise legislative power. In its recent ruling in Immigration and Naturalization Service v. Chadha, No. 80-1832 (June 23, 1983), the Supreme Court made clear that when Congress purports to exercise its legislative power, it must act in conformity with the requirements of Art. I, §§ 1 and 7 of the Constitution: passage by a majority of both Houses and presentment to the President for approval or veto. Section 19 would clearly involve an exercise of legislative power; it would authorize Congress, without presentment to the President, to restrict the President's exercise of his authority under § 129 of the Atomic Energy Act. As the Court stated in Chadha, disagreement with a decision by the Executive branch made pursuant to its delegated authority "involves determinations of policy that Congress can implement in only one way: bicameral passage followed by presentment to the President. Congress must abide by its delegation of authority until that delegation is legislatively altered or revoked." Therefore we believe that the provision in section 19 requiring congressional approval by concurrent resolution must be deleted.

In conclusion, the Administration strongly opposes H.R. 3058 in its entirety. It would undermine the position and influence of the United States in international nuclear affairs and thereby seriously damage our non-proliferation efforts.

The Office of Management and Budget advises that from the standpoint of the Administration's program there is no objection to the submission of this report.

With cordial regards,

Sincerely,



Alvin Paul Drischler
Acting Assistant Secretary
Legislative and Intergovernmental Affairs

APPENDIX 17

LETTER FROM ACDA CONCERNING ACDA'S COMMENTS ON H.R. 1417

UNITED STATES ARMS CONTROL AND DISARMAMENT AGENCY
Washington, DC 20451

October 24, 1983

Dear Mr. Chairman:

I am pleased to respond to your letter of April 19 to the Director requesting ACDA views on H.R. 1417, a bill "to promote the nuclear non-proliferation policies of the United States."

H.R. 1417 is identical to the bill approved by the House Foreign Affairs Committee during the 97th Congress. Administration views on that bill were transmitted to the House Foreign Affairs Committee on December 15, 1982 -- a copy of which is enclosed for your convenience.

We would note that since transmission of that letter, the amendments to 10 CFR 810, mentioned on page 2, have come into force (February 4, 1983). Further, as you know, the Administration has concluded the reassessment of its policies toward the International Atomic Energy Agency (IAEA). The study concluded that the IAEA plays a major role in support of critical U.S. security, commercial and non-proliferation interests. Therefore, the U.S. has renewed its participation in the IAEA and will maintain vigorous support for the Agency's programs on safeguards and technical assistance -- while continuing efforts to reduce political controversy.

The Office of Management and Budget advises that from the standpoint of the Administration's program there is no objection to the submission of this report.

Sincerely,

Thomas Graham, Jr.
General Counsel and Director
of Congressional Affairs

Attachment:

As stated.

The Honorable
Clement J. Zablocki, Chairman
Committee on Foreign Affairs
House of Representatives

DEPARTMENT OF STATE

Washington, D.C. 20520

DEC 1 5 1982

Dear Mr. Chairman:

As requested by the Committee during markup of the Bingham substitute for H.R. 6032, I am pleased to provide Executive Branch comments for inclusion in the record.

The Administration strongly opposes this legislation for the reasons detailed below. The additional controls it would impose on nuclear cooperation and trade are unnecessary and undesirable, and would have the effect of making our nuclear export and non-proliferation policy even more difficult to manage, without significant corresponding non-proliferation benefits. In addition, the modifications to the Atomic Energy Act (AEA) and Nuclear Non-Proliferation Act (NNPA) proposed in this bill would seriously undermine our efforts to restore the position of the United States as a predictable and stable nuclear trading partner and to convince foreign countries that they may deal confidently with the United States. Major revisions to the substantive and procedural rules that apply to key U.S. nuclear export activities, after the major changes in U.S. nuclear export law and policy in recent years, would reduce still further the role and influence of the United States in international nuclear affairs, and seriously injure our non-proliferation efforts.

Section 2 of H.R. 6032 would have the Congress make a number of findings. We acknowledge that efforts need to continue to improve the present international safeguards system. This is being taken into account in the Administration's reassessment of the IAEA. The Administration believes that utmost caution and restraint must be exercised in the supply of any sensitive nuclear technologies (enrichment, reprocessing and heavy water production) to non-nuclear-weapon states. Nevertheless, in matters of non-proliferation, just as in other aspects of foreign policy, concrete distinctions have to be made between cases where the export of such technology presents a proliferation risk and where it does not. President Reagan has stated that the United States will not inhibit civil reprocessing and breeder development in countries with advanced nuclear programs where these activities are not a proliferation

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risk. This policy recognizes that Japan and the EURATOM countries believe that such advanced fuel cycle activities are needed for their energy security.

Title I of H.R. 6032 would modify both the procedural and substantive rules that currently apply to technology exports under section 57 b. of the AEA. Section 102 of the bill would require fifteen days pre-publication in the Federal Register of any authorization under section 57 b. of the AEA and inclusion in the report under section 601(a) of the NNPA of a detailed description of authorizations pursuant to section 57 b. While these provisions could present technical difficulties because proprietary information may be involved, the main difficulty with them is that they would be likely to be seen abroad as further changes in U.S. conditions of nuclear supply, evidencing the continuing instability of U.S. nuclear law and procedures.

Section 103 of H.R. 6032 would require that no export of nonsensitive nuclear technology be authorized unless the Secretary of Energy found that the export criteria in sections 127 and 128 of the AEA are met. Similarly, section 601 of H.R. 6032 would amend section 128 of the AEA to require that, prior to Department of Commerce licensing of items proposed to be exported for, or likely to be used in, a nuclear end use, the Secretary of Energy determine that the recipient state has met the criteria set forth in sections 127 and 128. These criteria currently apply to exports of source or special nuclear material, production or utilization facilities, and of sensitive nuclear technology. These proposals would discard the legal framework that currently exists in the NNPA and AEA, which was carefully tailored to provide varied levels of control for each type of item or activity based on its proliferation sensitivity and would establish instead a new regime of the utmost rigidity. These proposals would instead extend sweeping controls to nonsensitive technology and Commerce-licensed exports. There is no convincing non-proliferation justification for such a step. Further, U.S. companies would be eliminated from many areas of nuclear commerce, and to the advantage of foreign suppliers. With respect to technology exports, the Department of Energy has recently published proposed revisions to 10 CFR Part 810 which will allow the U.S. to review any proposed export of unclassified U.S. nonsensitive nuclear technology to non-nuclear-weapon states which do not meet the criterion in section 128, and to deny such exports where the interests of the United States so require (47 Fed. Reg. 41320-27). It is anticipated that these regulations will be made effective in the imminent future.

Sections 103 and 601 would permit the President to authorize activities otherwise precluded subject to the requirements and conditions set forth in the third and fourth sentences of section 126 b.(2) of the AEA. In other words, such Presidential findings would purportedly be made subject to Congressional concurrent resolution veto. From a constitutional perspective, this provision and others in H.R. 6032 like it are invalid because they violate the constitutional procedures for exercising legislative power binding on the President, including the requirement of presentment to the President and the basic principle of separation of powers. The Congress already has ample legislative and oversight authority to provide direction to U.S. policy-makers in this area.

Section 104 of H.R. 6032 would preclude the export of nonsensitive nuclear technology in the event that the proposed recipient country engaged in any conduct resulting in termination of nuclear exports under section 129 of the AEA. Section 602 of the bill would preclude the issuance of validated licenses by the Department of Commerce "for the export of goods or technology which are to be used (or which in the judgment of the Secretary of Commerce are likely to be diverted for use) in any production or utilization facility" in a state covered by the prohibition in section 129 of the Atomic Energy Act. We believe these provisions would serve no useful purpose. Section 129 sanctions relate to exports that are of major importance to a recipient's nuclear program -- the prospective loss of which through a cut-off could hopefully deter the activities listed in section 129. However, nonsensitive nuclear technology -- concerning, for example, uranium mining -- and Commerce-licensed dual use items are of minor significance and no purpose would be served by including them as part of the statutorily mandated sanctions. Rather, case-by-case findings should be required. Even section 129 activities should not automatically preclude the U.S. from providing minor assistance, e.g., in the areas of health and safety, to safeguarded facilities. Further, the proposed revisions to 10 CFR Part 810 discussed above will allow consideration on a case-by-case basis of whether certain proposed transfers of unclassified nonsensitive nuclear technology should be authorized in circumstances where activities described in section 129 may be in question.

Title II of H.R. 6032 concerns exports of highly-enriched uranium. We agree that highly-enriched uranium is a material whose use must be carefully controlled and safeguarded. As you know, the Administration's policy reflected in the President's July 16, 1981, Non-Proliferation Statement, encourages the use of low-enriched fuels where feasible as well as restraint in the spread of sensitive nuclear material, equipment and

technology. This policy is reflected in procedures under which the Executive branch prepares an analysis of the technical and economic justification for the use of highly-enriched uranium (HEU) prior to recommendation approval of any license for its export. In addition, the reduced enrichment for research and test reactors (RERTR) program, which involves development of low-enriched fuels and which has received considerable support from foreign countries, promises in the future to reduce significantly the need for export of HEU. In our view, therefore, the substantive concerns of title II are already being fully addressed.

Moreover, we see a number of serious disadvantages to enactment of these provisions in addition to the basic problems noted above. They would compel the United States Government to second-guess the judgment of foreign nations on their own ability to take the technical, regulatory and licensing steps necessary to convert their facilities from HEU fuels, and on the desirability of doing so. The kilogram limit on fresh or spent HEU in each foreign country and at each reactor site in each such country is unworkable. We are concerned that these provisions could well result in a sharp reduction in the readiness of foreign governments to cooperate in the RERTR program and to implement its results and, conceivably, in foreign moves to start producing HEU once again because of uncertainty about U.S. supply. This obviously would not be in the non-proliferation interests of the U.S. Finally, research in this area has not yet fully examined the properties and behavior of alternative fuels, and we believe that a number of technical questions remain to be addressed before it can be stated that all legitimate reactor needs can be met with alternative reactor fuel.

Title II would amend the AEA to require the Nuclear Regulatory Commission both to oversee and to pass judgment on the adequacy of the Executive branch programs to develop alternative reactor fuels. Providing the NRC with such a role would unacceptably distort the relationship between the Commission and the Executive branch. In addition, the bill specifies that the President is to submit to Congress a plan with respect to the development and use in foreign reactors of alternative nuclear reactor fuels. We believe that there is no separate need for the submission of such a plan, as this matter can be handled in normal budgetary and oversight hearings.

Title III of H.R. 6032 deals with subsequent arrangements involving reprocessing. Section 301 of the bill would provide the NRC a veto over Executive branch decisions in this area. While the NRC is responsible for licensing the export of nuclear material, once that material is abroad further

transaction with regard to the material become questions of administration of an international agreement and relations with a foreign government; these questions have always been and are appropriately reserved to the Executive branch.

Section 302 of the bill would establish limitations and restrictions on the granting of what it defines as "programmatic approval" of reprocessing under U.S. agreements for cooperation. We believe the enactment of this provision would have a fundamentally unsettling effect on our allies in EURATOM and Japan. These provisions would modify and toughen the already stringent provisions that apply to subsequent arrangements concerning reprocessing under the law, and demonstrate again to these nations the instability of U.S. law and procedures, driving them further from dealing with the U.S. and disrupting negotiations currently underway. Further, these provisions are unnecessary. In testimony on September 9, 1982, Under Secretary of State Richard T. Kennedy made clear that the Administration intended to offer programmatic consent arrangements for reprocessing in the context of seeking new or amended peaceful nuclear cooperation agreements with Japan and EURATOM, which would be subject to Congressional review, and only after we make the determinations which would be required for a subsequent arrangement involving reprocessing under section 131 b.

Title IV of the bill would require that the Secretary of Defense make certain formal findings paralleling those made by the Secretaries of State and Energy in processing agreements for cooperation under section 123 of the AEA, nuclear exports under section 126 and subsequent arrangements under section 131. The Department of Defense participates in the interagency procedures developed to implement the NNPA, and has ample opportunity to make its views known in that process with respect to export license applications and subsequent arrangements. The procedures also establish a mechanism for disagreements to be raised and resolved. The Department of Defense participates in the formulation of major policy decisions with regard to agreements for cooperation. In sum, we do not believe Title IV of H.R. 6032 is necessary or desirable.

Title V deals with exports of reprocessing components and technology. Section 501 would insert a new section 134 in the AEA to preclude the export of "essential reprocessing components, sensitive reprocessing technology, and other assistance which is essential to nuclear fuel reprocessing" either under an agreement for cooperation or under authorization by the Secretary of Energy pursuant to section 57 of the AEA. We believe this provision would have significant

detrimental impacts on the ability of the United States to influence any future reprocessing plants in a direction that reduces proliferation risks. In 1978, the NNPA established statutory standards and procedures for sensitive nuclear technology exports, including reprocessing technology exports. Additional stringent requirements apply under the London Nuclear Suppliers Group Guidelines. We agree that exports of reprocessing material, equipment and technology must be strictly limited, and that there should be as few reprocessing facilities as feasible, under effective international auspices and inspection. However, this does not mean that there will be no reprocessing facilities abroad. Reprocessing facilities already exist -- and will continue to be built -- in Japan and in the EURATOM countries. By cooperating with these countries we would expect to be able to work more effectively to influence the safeguards and physical security measures applied to new facilities. In particular, cooperation with our key allies can provide us the opportunity to work with them to minimize the proliferation risks associated with such facility, most importantly by designing plants to facilitate the application of safeguards.

Comments on the provisions in title VI of H.R. 6032 have been set forth above, in the discussion of sections 102, 103 and 104.

In conclusion, the Administration strongly opposes H.R. 6032 in its entirety. It would undermine the position and influence of the United States in international nuclear affairs and thereby seriously injure our non-proliferation efforts.

The Office of Management and Budget advises that from the standpoint of the Administration's program there is no objection to the submission of this report.

With cordial regards,

Sincerely,

Powell A. Moore
Assistant Secretary for
Congressional Relations

APPENDIX 18

LETTER FROM ACDA CONCERNING ACDA'S COMMENTS ON H.R. 3058

UNITED STATES ARMS CONTROL AND DISARMAMENT AGENCY
Washington, D.C. 20451

The Honorable
Clement J. Zablocki, Chairman
Committee on Foreign Affairs
House of Representatives

October 24, 1983

Dear Mr. Chairman:

As requested by your letter of June 15, I am pleased to provide comments on H.R. 3058, a bill to amend the Nuclear Non-Proliferation Act of 1978 (NNPA) and otherwise promote the nuclear non-proliferation policies of the United States. We strongly opppose the bill and believe that it would undermine our nuclear relations with other countries to the detriment of achieving our nuclear non-proliferation objectives.

Section 4 of H.R. 3058 would prohibit U.S. assistance in foreign enrichment, reprocessing or heavy water production. As a matter of law, international undertakings (the London Suppliers Guidelines) and policy, the U.S. already exercises stringent controls on such sensitive exports. Clearly. in most cases, the U.S. would not be interested in the export of such sensitive assistance and would, in fact, oppose its acquisition by states of possible proliferation concern.

However, there are situations in which the U.S. might be interested in assisting foreign programs in order to further our non-proliferation interests. One example would be our interest in continuing to exert influence over the on-going design of reprocessing or enrichment facilities in advanced states which are parties to the Non-Proliferation Treaty and which do not raise proliferation concerns. Our non-proliferation interest in such instances would be to assure that such facilities have the best possible International Atomic Energy Agency (IAEA) safeguards applied to them. Another possible example would be pursuant to the Nuclear Suppliers Guidelines (INFCIRC/254) suggestion that regional multinational facilities be encouraged as an alternative to national facilities which in general pose inherently greater proliferation risks. In these cases, U.S. interests in furthering the non-proliferation

regime would be best served by the careful development of policies based on specific situations. Section 4 would destroy the flexibility needed to adapt our policies to meet the complexity of non-proliferation problems.

Section 5 requires additional conditions on the reprocessing of U.S.-origin material or on the use or retransfer any produced plutonium. These conditions would allow approvals of these activities only in nuclear weapon states or in states which accept full-scope safeguards and only for existing facilities. It precludes U.S. assistance to any possible multinational reprocessing facility involving a non-nuclear weapon state like Japan, and would prohibit the use of any U.S.-origin plutonium in any future power reactors, wherever located. Both these constraints would pose potentially serious problems for the conduct of our nuclear non-proliferation policies. As already noted above, in some instances U.S. assistance to multinational regional reprocessing centers could be desirable. Also, U.S. refusal to cooperate with certain non-nuclear weapon states, such as Japan, with advanced nuclear programs and impeccable non-proliferation credentials and which are committed to the use of plutonium fuels in their programs, would seriously impede the cooperation needed to continue development of a more effective non-proliferation regime.

Section 6 requires additional restrictions on the export of highly enriched uranium (HEU) for use in nuclear reactors. We agree that HEU is a material whose use must be carefully contolled and safeguarded. As you know, the Administration's policy encourages the use of low-enriched fuels. The reduced enrichment for research and test reactors (RERTR) program, which involves development of low-enriched fuels, has received considerable support from foreign countries and, with adequate support, this program will lead to significantly reduced exports of HEU. In our view, therefore, the substantive concerns addressed by this Section are satisfactorily being met. Additionally, Section 6 could have the adverse effect of stimulating other states to consider their own HEU production if the U.S. is perceived as an unreliable supplier. Moreover, we believe it is inappropriate to charge the NRC with determinating that the Executive Branch is making "reasonable progress in developing an alternative reactor fuel."

Section 8 provides for fuel assurances and energy assistance to countries which agree to forego reprocessing, enrichment and the use of plutonium in nuclear fuels. We believe that evaluation of this proposal requires careful consideration of whether such a preference policy is likely to influence the decision-making of those states which are judged likely to consider reprocessing, enrichment and the use of plutonium fuels. Our recent experience with efforts to generate international interest in a fuel bank suggest that such interest is limited. Thus, expenditures to subsidize fuel may generate limited influence.

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Section 11 provides for additional efforts by the NRC and the Executive Branch to support physical safeguards. ACDA supports such efforts at appropriate levels.

Section 13 would require that the U.S. have in effect an agreement for cooperation with a state in order to export technology related to the production of nuclear materials. There are several considerations which would make this provision unnecessary and unwise. First, such exports are currently subject to interagency policy review, and in fact, the recent DOE amendments to Part 810 have improved the policy review process. Second, significant nuclear cooperation between the U.S. and other states is already subject to the requirement that an agreement for cooperation be in force, and the types of cooperation which would fall under this provision are not likely to be of major importance. With respect to states which do not currently have an agreement for cooperation with the United States, approving less significant assistance may serve our non-proliferation interest in maintaining influence in their nuclear programs. We need this flexibility.

Section 14 requires that a state meet the criteria of Sections 127 and 128 in order to receive U.S. assistance subject to 57b. For the reasons cited immediately above, such a provision would deprive policymakers of the flexibility needed to effectively pursue our non-proliferation objectives.

Section 15 provides for additional responsibilities for the Secretary of Defense in the negotiation of agreements for cooperation and subsequent arrangements. In our view, non-proliferation is a national security concern. We note that under existing law and procedures, the Department of Defense is currently a participant in the non-proliferation policy review process and has full opportunity to voice its opinion. Further, statutory requirements are unnecessary.

Section 16 would require that a state meet the criteria of Sections 127 and 128 to receive items requiring a validated license from Commerce, and which are going to be used or are likely to be used in a production or utilization facility. It is sometimes desirable that Commerce controls parallel those exercised by the NRC. However, we believe that this is being accomplished and can best be accomplished, based on case-by-case review, with NRC participation in the process. Once again, this proposal would destroy the carefully calibrated regulatory structure set up by the NNPA which matches the sensitivity of the proposed export item with the degree of regulatory control.

Section 17 would require that the export of 109b components be subject to Section 123, 127 and 128 of the NNPA. Our comments on Section 13 and 14 also apply to this section.

In brief, significant nuclear cooperation is already subject to Sections 123, 127 and 128, and this section would deprive the United States of the flexibility it needs to forward its non-proliferation policy.

Section 18 would regulate the activities of persons subject to U.S. jurisdiction engaged in supply or brokering types of activities abroad. While ideally it might seem desirable in some instances to have controls on the brokering activities of U.S. citizens (e.g. if they were assisting problem countries to acquire material or equipment for a weapons program), we believe that efforts to exert such controls would generate strong adverse reactions by foreign governments. This would seriously damage the cooperative relations with our allies which are essential to the achievement of our non-proliferation goals.

Section 19 would require in part, that if Section 129 required termination of NRC-licensed exports, then the U.S. would also terminate exports under validated license by the Department of Commerce and exports of technology. We would oppose such a requirement, since validated licensed items are already subject to policy review on a case-by-case basis. We believe that it would be inappropriate to make such a change since many proposed dual-use exports will not have nonproliferation significance.

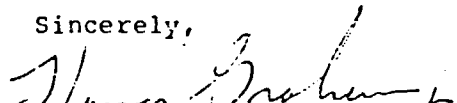
We note that this section does not include the requirement for consulations with the Arms Control and Disarmament Agency. We would further point out that currently, under Section 309(c) of the NNPA and Section 57 of the NNPA, ACDA is a participant in the review process involving Commerce-licensed items and DOE-licensed technology transfers.

We further note that the necessity for affirmative concurrent resolution would violate the Supreme Court's recent ruling in INS v. Chadha and should be deleted.

In sum, ACDA is strongly opposed to the proposed legislation. Its rigid approach to non-proliferation would undercut our continuing efforts to strengthen the nuclear non-proliferation regime and make far more difficult the achievement of our non-proliferation objectives.

The Office of Management and Budget advises that from the standpoint of the Administration's program there is no objection to the submission of this report.

Sincerely,



Thomas Graham, Jr.
General Counsel and Director
of Congressional Affairs

APPENDIX 19

Statement Submitted for the Record by Hon. Marilyn Lloyd, a Representative in Congress from the State of Tennessee

MR. CHAIRMAN, I COME BEFORE YOU TODAY TO MAKE A PLEA FOR A RATIONAL AND CONSTRUCTIVE U.S. POLICY ON NUCLEAR EXPORTS. SUCH A POLICY CANNOT BE TAILORED TO ADDRESS THE VISCERAL WHIMS OF THOSE WHO CANNOT SEPARATE THE MYSTIQUE OF NUCLEAR WEAPONRY FROM THE REALITY OF CIVILIAN NUCLEAR TECHNOLOGY. NEITHER CAN THIS POLICY BE A VEHICLE FOR UNRESTRAINED AND INDISCRIMINATE EXPORT OF SENSITIVE OR UNSAFEGUARDED NUCLEAR TECHNOLOGY AND MATERIAL TO RISKY NATIONS WITH NO ESTABLISHED NON-PROLIFERATION CREDENTIALS.

I SHOULD LIKE TO APPROACH THIS QUESTION FIRST OF ALL FROM THE HISTORICAL VIEW OF AN EVOLVING U.S. POLICY SINCE THE END OF WORLD WAR II. THERE ARE CERTAIN LESSONS WHICH I BELIEVE WE SHOULD HAVE LEARNED FROM BOTH THE SUCCESSES AND FAILURES OF THE VARIOUS APPROACHES TO THIS POLICY AND ITS IMPLEMENTATION. I WILL ALSO FOCUS ON ADVANCED NUCLEAR TECHNOLOGY WHICH IS THE SPECIAL JURISDICTION OF THE SUBCOMMITTEE WHICH I CHAIR AND DISCUSS THE EROSION OF THE U.S. ROLE IN THAT ARENA. FINALLY, I SHOULD LIKE TO SUGGEST A MIDDLE GROUND POLICY THAT ASSURES SUPPLY TO MEET PEACEFUL NUCLEAR REQUIREMENTS ON A WORLDWIDE BASIS WITHOUT INCREASING PROLIFERATION RISKS IN THE CONTEXT OF PROPOSED LEGISLATION.

THE U.S. FIRST ATTEMPTED INTERNATIONAL CONTROL OF THE ENTIRE FIELD OF

ATOMIC ENERGY AND THIS CONSTITUTED THE COUNTRY'S EARLY "SWEEPING DENIAL" STRATEGY. HOWEVER, MANY U.N. NATIONS WERE NOT AS SUPPORTIVE OF THIS U.S. APPROACH AS WERE CANADA AND THE UNITED KINGDOM, AND THE UNITED NATIONS' ATOMIC ENERGY COMMISSION GRADUALLY FADED AWAY. AT THE SAME TIME THE CONGRESS, SEEKING "TO KEEP THE GENIE INSIDE THE BOTTLE," ENACTED THE ATOMIC ENERGY ACT OF 1946 WHICH VIRTUALLY STOPPED INTERNATIONAL COOPERATION IN NUCLEAR ENERGY AND NUCLEAR EXPORTS. GRADUALLY, HOWEVER, THE U.S. BEGAN TO COOPERATE OUT OF NECESSITY WITH COUNTRIES WHO HAD URANIUM IN THE FACE OF RAPID SOVIET WEAPONS DEVELOPMENT. THE ATOMIC ENERGY ACT OF 1954 CONSTITUTED A MORE SELECTIVE RENEWAL OF THE DENIAL STRATEGY THROUGH SECRECY AND TIGHT CONTROLS. THUS, THE U.S. EMBARKED ON A PROGRAM TO ENCOURAGE THE PEACEFUL USES OF NUCLEAR ENERGY THROUGH BILATERAL AGREEMENTS. THESE AGREEMENTS REQUIRED INSPECTIONS OF U.S. NUCLEAR EXPORTS AND CONTAINED OTHER PROVISIONS TO PREVENT THE MISUSE OF U.S. TECHNOLOGY OR MATERIALS. THIS APPROACH WAS TAKEN IN CONSENSUS WITH THE U.S. PUSH FOR CREATION OF THE INTERNATIONAL ATOMIC ENERGY AGENCY.

THERE WERE GROWING CONCERNS INTO THE MID-SIXTIES THAT INDUSTRIAL COUNTRIES MOVING TOWARD NUCLEAR POWER MIGHT MAKE NUCLEAR WEAPONS. THE RESULT WAS THE TREATY ON THE NONPROLIFERATION OF NUCLEAR WEAPONS (NPT) WHICH TOOK EFFECT IN 1970. IN THIS CASE, THE U.S. STRATEGY COULD ONCE AGAIN BE CHARACTERIZED AS ONE OF "SELECTIVE DENIAL" WITH BROAD ENCOURAGEMENT FOR THE USE OF NUCLEAR POWER BY STATES THAT WOULD AGREE TO INSPECTIONS AND PLEDGE NOT TO ACQUIRE NUCLEAR WEAPONS. HOWEVER, INDIA'S TEST OF A NUCLEAR EXPLOSIVE IN 1974 DISPELLED THE HOPES THAT THE NPT WOULD PROVIDE THE ANSWER TO PROLIFERATION CONCERNS. THUS, NEW

PRESSURES GRADUALLY BUILT FOR INCREASED CONTROL AND RESTRICTIONS ON NUCLEAR COOPERATION. TANGIBLE EVIDENCE FOR THIS WERE THE VOLUNTARY GUIDLINES ADOPTED BY NUCLEAR SUPPLIER STATES IN 1978 AND THE U.S. NUCLEAR NONPROLIFERATION ACT (NNPA) OF 1978. THE NNPA, AS YOU WELL KNOW, CALLED FOR SUBSTANTIAL NONPROLIFERATION COMMITMENTS BY STATES THAT WISH TO CONTINUE NUCLEAR COOPERATION. I WILL NOT DWELL ON THE DRAWBACKS OF THE NNPA BEYOND NOTING THAT ITS IMPLEMENTATION BY THE CARTER ADMINISTRATION WAS WIDELY PERCEIVED AS AN INSULTING UNILATERAL APPROACH TO NUCLEAR NONPROLIFERATION BASED ON AN INDISCRIMINATE POLICY OF DENIAL WHILE ABROGATING THE TRADITIONAL U.S. POSITION ON THE "SANCTITY OF CONTRACTS." I TESTIFIED BEFORE THIS COMMITTEE IN THE LAST CONGRESS ON THIS TOPIC AND DESCRIBED THE VARIOUS REACTIONS OF OUR ALLIES TO THIS POLICY FROM THE "QUIET RAGE" OF THE SPANISH TO THE "WISTFUL REGRET" OF OUR BRITISH FRIENDS. THE INTERNATIONAL FUEL CYCLE EVALUATION (INFCE), PROPOSED BY PRESIDENT CARTER IN 1977, WAS A BENEFICIAL EXERCISE BUT, AS WE ALL KNOW, IT DID NOT TURN OUT AT ALL AS THAT PRESIDENT HAD WISHED.

I BELIEVE THAT THE REAGAN ADMINISTRATION'S EMPHASIS ON THE RELIABILITY OF THE UNITED STATES AS A NUCLEAR SUPPLIER IS COMMENDABLE, ALTHOUGH I RECOGNIZE THAT SUCH A POLICY HAS HARDLY BEEN IMPLEMENTED IN A FLAWLESS MANNER. AS I UNDERSTAND IT, THE GOALS OF THIS POLICY ARE TO REGAIN THE U.S. ABILITY TO INFLUENCE OTHER NATIONS' NUCLEAR ACTIVITIES AND TO DO IT IN A CASE-BY-CASE FASHION, DISCRIMINATING BETWEEN NATIONS WHICH HAVE LEGITIMATE CIVILIAN POWER PROGRAMS AND THOSE WHICH ARE POTENTIAL PROLIFERATION RISKS THIS APPROACH HAS THE VIRTUE OF RECOGNIZING THE INSTITUTIONAL FRAMEWORK THROUGH A NETWORK OF TREATIES, UNDERSTANDINGS

AND BILATERAL AGREEMENTS WHICH PRESENTLY COMPRISES THE WORLD'S NUCLEAR NONPROLIFERATION INFRASTRUCTURE. I BELIEVE THAT SUCH AN APPROACH SHOULD ALSO INCLUDE HEALTHY AND TIMELY CONSULTATION WITH THE CONGRESS AND "EARLY WARNING" ON SENSITIVE DECISIONS.

THE U.S. ROLE IN BREEDER REACTOR DEVELOPMENT IS ONE WHICH, AS YOU KNOW MR. CHAIRMAN, HAS BEEN MOST FAMILIAR TO ME THROUGHOUT MY DECADE IN THE CONGRESS. THE CLINCH RIVER BREEDER REACTOR PROJECT (CRBRP) HAS BEEN THE LINCHPIN OF THIS PROGRAM AND CRITICAL IN FOCUSING THE PROGRAM EFFORTS IN A WAY THAT ASSURES US THAT THE TECHNOLOGY DEVELOPMENT PATH IS BEING PURSUED IN AN OPTIMUM FASHION. DESPITE PROLONGED DELAYS AND A 60% COST ESCALATION OF THE PROJECT BECAUSE OF THE UNCERTAINTY DUE TO POLICY DIFFERENCES BETWEEN FIRST, THE CARTER ADMINISTRATION AND TWO DEMOCRATICALLY CONTROLLED HOUSES OF CONGRESS AND, MORE RECENTLY, THE REAGAN ADMINISTRATION AND THE HOUSE OF REPRESENTATIVES, OTHER NATIONS STILL LOOK TO IT AS AN IMPORTANT AND PRUDENT STEP IN THE BREEDER R&D SEQUENCE. HOWEVER, THE NEGATIVE IMPACTS OF THE UNCERTAINTIES SURROUNDING CRBRP ARE NOT CONFINED TO COST ESCALATION AND ASSOCIATED DELAYS IN DEMONSTRATING THIS ADVANCED TECHNOLOGY. THE BRITISH RECENTLY ANNOUNCED THAT THEY WILL ENTER INTO FIRM AGREEMENTS WITH THE COMMON MARKET, AND PRINCIPALLY THE FRENCH, TO PURSUE THEIR BREEDER REACTOR DEVELOPMENT PROGRAM. FOR THE PAST SEVERAL YEARS THE BRITISH HAVE WAITED PATIENTLY AND HOPEFULLY FOR US TO GET OUR NUCLEAR HOUSE IN ORDER. NOT ONLY THE EXECUTIVE BRANCH BUT I AND OTHER MEMBERS OF OUR COMMITTEE HAD MAINTAINED A HEALTHY DIALOGUE ON COOPERATIVE U.S./U.K. OPPORTUNITIES THROUGHOUT THIS PERIOD. UNFORTUNATELY, WE HAVE NOT ARRIVED AT A U.S. POLICY WHICH CAN BE IMPLEMENTED WITH ANY CERTAINTY

AND THEY HAVE RUN OUT OF PATIENCE. I WOULD LIKE TO HAVE THE CHAIRMAN'S PERMISSION TO ENTER THE U.K. ANNOUNCEMENT OF THIS DECISION IN THE HEARING RECORD; IT IS FROM MR. PETER WALKER, SECRETARY OF ENERGY, DATED SEPTEMBER 5.

AS IN MANY OTHER TECHNOLOGICAL ARENAS, NATIONS RECOGNIZE THAT A SLOWING OF THE U.S. PROGRAM HAS THE NEGATIVE IMPACT OF REDUCING THE OVERALL QUALITY OF THE WORLDWIDE EFFORT, BUT AT THE SAME TIME ENHANCES THEIR OWN CHANCES OF ULTIMATELY REAPING SIGNIFICANT COMMERCIAL GAIN AT OUR EXPENSE. AS MR. BARRÉ, THE FRENCH NUCLEAR ATTACHE, STATED BEFORE THE ENERGY RESEARCH AND PRODUCTION SUBCOMMITTEE WHICH I CHAIR ON SEPTEMBER 15, 1983, THE PROGRAM WILL GO AHEAD WITHOUT THE U.S. BUT "WE SHALL MISS YOU." I MIGHT OBSERVE THAT THE U.S. BREEDER POLICY HAS PUZZLED OTHER DEVELOPED NATIONS SINCE MR. CARTER'S 1977 DECISION TO CUT BACK THE BREEDER OCCURRED WITHOUT CONSULTATION EVEN WITH THE U.S. DELEGATION TO THE IAEA.

MR. CHAIRMAN, THE WORLDWIDE REQUIREMENTS FOR NUCLEAR ENERGY AND THE INCREASING ENVIRONMENTAL CONSTRAINTS ON THE COAL OPTION AS WELL AS THE DWINDLING SUPPLIES OF OIL AND GAS MAKE IT IMPERATIVE THAT WE PLAN FOR A SUSTAINED NUCLEAR OPTION. IN THE U.S., OVER EIGHTY REACTORS ARE OPERATING, IN ADDITION TO ANOTHER FIFTY UNDER CONSTRUCTION. OUTSIDE OF THE UNITED STATES, THERE ARE 207 OPERATING REACTORS WITH ANOTHER 163 UNDER CONSTRUCTION AND AN ADDITIONAL 185 ON ORDER OR PLANNED. THIS WORLDWIDE EXPANSION COMBINED WITH THE CONSTRAINT FROM THE ACID RAIN PROBLEM AND THE WARNING ON GLOBAL CO_2 SHOULD CONVINCE US THAT THERE MUST BE A HEALTHY NUCLEAR CONTRIBUTION TO THE MIX FOR

ELECTRICITY GENERATION THROUGH THIS CENTURY AND BEYOND. I WOULD LIKE TO TAKE THIS OPPORTUNITY TO ALSO SUGGEST TO THE COMMITTEE THAT BREEDER TECHNOLOGY REPRESENTS AN ENTIRELY NEW HORIZON FOR NUCLEAR ENERGY. THERE IS NO INHERENT REASON IN THE LONG RUN WHY BREEDER PLANTS SHOULD BE ANY MORE EXPENSIVE THAN LIGHT WATER REACTOR PLANTS AS THE TECHNOLOGY IS DEVELOPED AND LOW COST DESIGNS ARE EMPHASIZED AND ACHIEVED. THE U.S. PROGRAM IS AIMING NO LOWER THAN THE TARGET OF VIRTUALLY FAIL-SAFE REACTORS BECAUSE OF THE UNIQUE PROPERTIES OF THE SODIUM COOLANT AND POSSIBLE PLANT LIFETIMES OF AS GREAT AS 50 TO 70 YEARS AS OUR MATERIALS KNOWLEDGE ADVANCES. THIS AMOUNTS TO A BULLISH PERSPECTIVE FOR NUCLEAR POWER REGARDLESS OF THE FUTURE DIRECTION OF THE U.S. LIGHT WATER REACTOR PROGRAM.

GIVEN THIS PERSPECTIVE, LET ME COMMENT BRIEFLY ON THE NUCLEAR EXPORT LEGISLATION WHICH HAS BEEN PROPOSED. THE BILLS, H.R. 1417 AND H.R. 3058, APPEAR WELL-INTENDED AT FIRST GLANCE, BUT THEY HAVE SOME MISCHIEVOUS FEATURES AND ARE BASED SOMEWHAT ON THE MYTHS RATHER THAN THE REALITIES OF THE PROLIFERATION RISK. THE MANNER IN WHICH PLUTONIUM IS CHARACTERIZED APPEARS TO BE A THINLY DISGUISED ATTEMPT TO PREJUDICE U.S. POLICY ON THE BREEDER OPTION AND SEVERAL OF THE FINDINGS OVER EMPHASIZE THE NUCLEAR POWER/WEAPONS LINKAGE. THE FEDERAL SUBSIDIZATION OF URANIUM EXPORTS AS A NONPROLIFERATION INCENTIVE ARE NOT CONSISTENT WITH THE REALITIES OF EITHER THE WORLD ENRICHMENT MARKET OR THE HEALTH OF THE U.S. MINING INFRASTRUCTURE. WE HAVE JUST HEARD THAT THE ITALIANS ARE WILLING TO SELL ENRICHED URANIUM AT $80 PER SEPARATIVE WORK UNIT (SWU) AND SPOT MARKET PRICES ARE IN THE NINETIES. THIS QUESTION OF THE U.S. AS A RELIABLE SUPPLIER OF

ENRICHED URANIUM WILL BE EXTENSIVELY DEBATED THROUGHOUT THE REST OF THIS CONGRESS AS WE TRY TO DERIVE AN OPTIMUM STRATEGY FOR THE U.S. ENRICHMENT ENTERPRISE. I JUST RELEASED A CBO REPORT WHICH WAS DONE AT MY REQUEST SUGGESTING THAT THE LOWEST COST SCENARIO WOULD BE FOR THE U.S. TO COMPLETE THE PORTSMOUTH PLANT AND FILL IT WITH ADVANCED SET V CENTRIFUGES BY THE MID-NINETIES. THIS LOW-COST TECHNOLOGY PROMISES TO REDUCE COSTS PER SWU BY A FACTOR OF FOUR!

THE INCLUSION OF THE SECRETARY OF DEFENSE IN THE NUCLEAR EXPORT CHAIN OF DECISIONS WITH AN OPEN-ENDED VETO DOES NOT APPEAR TO BE A DESIRABLE PROVISION. THE SECRETARY OF ENERGY HAS THE CAPABILITY TO MAKE JUDGEMENTS ON THE SENSITIVITY OF TECHNOLOGY OR INFORMATION, BUT THE PRESIDENT SHOULD BE ABLE TO RESOLVE ANY INTRA-CABINET QUESTIONS ABOUT IMPACTS ON NATIONAL SECURITY WITHOUT EXPLICITLY INCLUDING DOD IN THE NONPROLIFERATION SCREENING PROCESS. ALSO, THE PROVISIONS FOR THE DUTIES OF THE SECRETARY OF ENERGY SHOULD BE FOCUSED ON SENSITIVE EXPORTS SUCH AS REPROCESSING OR ENRICHMENT-RELATED TECHNOLOGY PROVISIONS. THE PROPOSED LEGISLATION WOULD HAVE EVEN MINOR ISSUES GETTING THE "FULL TREATMENT" FROM THE SECRETARY WHICH APPEARS TO ME TO BE AN ONEROUS ADMINISTRATIVE BURDEN WITHOUT ANY REAL PROMISE OF ENHANCING NONPROLIFERATION GOALS. THE PROVISIONS ON EXPORT OF HIGHLY ENRICHED URANIUM (HEU) SHOULD BE SUBJECTED TO FURTHER SCRUTINY AND I WOULD HOPE THAT THE COMMITTEE WOULD OBTAIN DATA ON THE LEVEL OF U.S. SUPPLIED HEU INVENTORY AROUND THE WORLD. IT WOULD BE UNFORTUNATE IF THE PROPOSED PROVISIONS WOULD DRIVE COUNTRIES TOWARD OTHER SUPPLIERS FOR THEIR RESEARCH REACTOR FUEL AND PERHAPS EVEN ENCOURAGE THE SOUTH AFRICANS TO ENLARGE THEIR ENRICHMENT CAPACITY BECAUSE THE U.S. OPTED

OUT ON HEU SUPPLY. THE PROVISIONS ON REPROCESSING CORRECTLY FOCUS ON THE SENSITIVE TECHNOLOGY BUT APPEAR TO BEG THE QUESTION SUCH THAT THE U.S. WILL NOT EVER ENGAGE IN ANY COMMERCE EVEN WITH HIGHLY SELECTIVE FRIENDS OF OURS IN THESE TECHNOLOGIES OR IN THE USE OF HEAVY WATER TECHNOLOGY. THE PROVISIONS REGARDING THE ROLE OF THE SECRETARY OF COMMERCE APPEAR UNFORTUNATELY BROAD AND IF THE PHRASE "GOODS OR TECHNOLOGY" IS MEANT SIMPLY TO EMBRACE COMPUTER TECHNOLOGY, THEN THIS SHOULD BE DELINEATED IN STATUTE. THIS SWEEPING APPROACH UNFORTUNATELY REMINDS ME OF THE HERITAGE OF THE CARTER YEARS WHEN EVEN SAFETY EQUIPMENT FOR THE DETECTION OF CRACKS IN PRESSURE VESSELS WAS WITHHELD DURING THE DARK DAYS OF THE "DENIAL SYNDROME."

SINCE THAT ARTIFICIAL SUN BLAZED OVER ALAMOGORDO FORTY YEARS AGO, THE PERCEPTION OF THE LINKAGE BETWEEN NUCLEAR POWER FOR PEACEFUL PURPOSES AND NUCLEAR WEAPONS HAS OSCILLATED DRAMATICALLY. I BELIEVE NOW THAT THIS COMMITTEE THROUGH RESTRAINED AND CONSTRUCTIVE ACTION COULD ACHIEVE A MIDDLE GROUND TO ENCOURAGE SUSTAINED DEVELOPMENT FOR PEACEFUL PURPOSES WITHOUT MEASURABLY INCREASING PROLIFERATION RISKS. AS BERTRAND GOLDSCHMIDT NOTES IN HIS BOOK "THE ATOMIC COMPLEX," THE PERIOD 1974 TO 1981 HAS BEEN ONE OF "CONFUSION" WITH RESPECT TO THE NUCLEAR OPTION WHILE "AN IMMENSE NUCLEAR CAPITAL" HAD BEEN ACQUIRED IN OPERATING EXPERIENCE BY 1980 AND "THIS MOST PRECIOUS CAPITAL" SHOULD "BE PROTECTED AGAINST ALL ATTACKS." THIS IS THE DECISIVE DECADE FOR NUCLEAR ENERGY AND THOSE WHO WOULD WISHFULLY AND SIMPLISTICALLY REPLACE CENTRAL STATION POWER BY SOLAR CELLS ALL OVER THE LANDSCAPE SIMPLY DO NOT APPRECIATE THE MAGNITUDE OF THE GLOBAL ENERGY PROBLEM.

MR. CHAIRMAN, IT IS UNFORTUNATE THAT ANTINUCLEAR GROUPS AND A SIGNIFICANT FRACTION OF THE PRESS DO NOT CHOOSE TO EVEN DISTINGUISH BETWEEN OPPOSITION TO NUCLEAR POWER AND OPPOSITION TO NUCLEAR WEAPONS. THE DEBATE HAS BECOME SO CONFUSED THAT IN MANY CASES THEY WOULD HAVE US BELIEVE THERE IS NO LONGER ANY DIFFERENCE BETWEEN BEING AGAINST A NEW MISSILE SYSTEM AND OPPOSING A NEW POWERPLANT. THOSE WHO WOULD EMBRACE SUCH ANTI-TECHNOLOGICAL ARROGANCE SHOULD BE REMINDED THAT SHORTAGES AMONG THE DEVELOPED NATIONS WILL INEVITABLY RESULT IN REDUCED ECONOMIC ACTIVITY, INCREASED UNEMPLOYMENT, AND ASSOCIATED POLITICAL INSTABILITY. MOREOVER, IN THE THIRD WORLD WHICH IS ALREADY SUFFERING UNDER THE PUNISHING DEMANDS OF UNAVOIDABLE POPULATION EXPANSION, THE MISERIES OF POVERTY AND MALNUTRITION WILL DASH ANY HOPES FOR IMPROVED LIVING STANDARDS. THUS, IT IS HARDLY IN THE LONG-TERM INTEREST OF UNDERDEVELOPED NATIONS AROUND THE GLOBE FOR US TO UNILATERALLY NARROW THEIR ENERGY CHOICES. IN FACT, GIVEN THE WORLDWIDE DEMANDS FOR NUCLEAR ENERGY, I BELIEVE THAT IT IS APPROPRIATE TO QUOTE AN INDIAN SCIENTIST AT THE FIRST ATOMS FOR PEACE CONFERENCE NEARLY THIRTY YEARS AGO: "NO ENERGY IS MORE EXPENSIVE THAN NO ENERGY." AS MR. GOLDSCHMIDT HAS PARAPHRASED THIS ADVICE TODAY, "NO ENERGY CAN BE MORE DANGEROUS THAN NO ENERGY." I WOULD HOPE THAT THIS COMMITTEE WILL NOT CHOOSE TO EXACERBATE THE GLOBAL ENERGY PROBLEM, BUT RATHER HELP THE U.S. TOWARD A POLICY WHICH RECOGNIZES THE NEED FOR THIS COUNTRY TO BE A HEALTHY PLAYER IN INTERNATIONAL NUCLEAR COMMERCE.

I WOULD ALSO HOPE THAT WE CAN ENCOURAGE A STRONG AND CANDID DIALOGUE BETWEEN THIS AND FUTURE ADMINISTRATIONS AND THE CONGRESS ON NUCLEAR EXPORT POLICY. LET US DO IT BY DISTINGUISHING BETWEEN PAKISTAN AND

JAPAN. LET US DO IT BY DISCRIMINATING BETWEEN IRAQ AND SWEDEN. LET US DO IT BY DISTINGQUISHING BETWEEN THE COMMERCE OF REPROCESSING TECHNOLOGY AND PROVIDING ENRICHED URANIUM FOR MANY RESEARCH REACTORS WHICH ARE USED PRIMARILY TO MAKE RADIOPHARMACEUTICALS. OF COURSE, THE ADMINISTRATION MUST BE MORE CAREFUL AND CONSULTATIVE ABOUT EXPORTS SUCH AS THE HEAVY WATER TO THE ARGENTINIANS, BUT CHARACTERIZING THEIR POLICY AS RECKLESS IS HARDLY THE KIND OF APPROACH THAT CAN HELP US ACHIEVE A CONSTRUCTIVE MIDDLE GROUND. I HOPE WE CAN APPROACH THIS QUESTION MORE OBJECTIVELY AND AS LINCOLN NOTED, "DISENTHRALL OURSELVES" AND "RISE WITH THE OCCASION" SUCH THAT WE CAN DEVISE A U.S. POLICY, NOT JUST A REAGAN POLICY AND NOT SIMPLY A CONGRESSIONAL POLICY, WHICH WE CAN RATIONALLY IMPLEMENT FOR DECADES TO COME.

THANK YOU, MR. CHAIRMAN.

APPENDIX 20

STATEMENT SUBMITTED FOR THE RECORD BY HON. CHARLES B. RANGEL, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEW YORK

The issue of nonproliferation is one that concerns all of us. It is nice to sit around and shake our heads about the inherently dangerous consequences of nuclear proliferation, but it is more vital to actively seek an answer to this problem. It is in this spirit that I commend the Subcommittee for its investigation into the merits of imposing strict controls on nuclear exports by the United States.

As you know, South Africa, Argentina, and India are three nations that either possess nuclear armaments, or have the capacity to build them in the very near future. You also know that none of these countries are signatories of the Nuclear Nonproliferation Treaty (NPT). These nations pose a very serious threat to worldwide efforts to regulate the use of nuclear materials. I urge the Subcommittee to keep them in mind during these hearings.

I would like to focus my remarks on nonproliferation as it relates to South Africa.

The Reagan administration's policy of "constructive engagement" with South Africa is completely unrealistic. The theory is that Johannisberg will loosen the bonds of apartheid if we open the doors of trade with them. The administration thinks that this will somehow pry concessions from them.

They seem to ignore the simple fact that a strong South Africa will have no incentive to end apartheid. If they can profit under a system of racial repression, why change?

Apartheid is repugnant to everything the United States stands for. It mocks democracy, scorns fundamental human rights, and rapes human dignity. It is a system that we have absolutely no reason to do business with. And let's face it, "constructive engagement" is business as usual. No true friend of democracy and liberty can be a friend of South Africa.

South Africa wants nuclear technology for the same reason that virtually everyone else want nuclear technology--to become a member of the nuclear club. That is, they want an atomic bomb. We do not need another nuclear power, least of all a repressive regime that launches attacks on its neighbors whenever and wherever it wants to. This is a regime that would not hesitate to use every means at its disposal to discourage its neighbors from influencing the millions of non-white South Africans in their desire for freedom. Don't fool yourselves, South Africa would use the bomb if it had it.

Unfortunately, the Reagan administration sees no danger in aiding nuclear development in South Africa. We continue to transfer so-called "dual use" items to that country, technology that can readily be adapted to nuclear uses.

I was very disturbed by the recent State Department license approval for American companies bidding for a management

services contract to operate the Koeberg nuclear reactor near Capetown. It is evident from this that the policy of "constructive engagement" ignores the serious implications of nuclear cooperation with a nation that refuses to participate in international safeguard initiatives. There is no reason to think South Africa will voluntarily comply with the NPT, and I cannot believe the administration really thinks apartheid will disappear because of the Koeberg deal.

Our technical support for South African nuclear development will only have a deleterious impact on our foreign relations in the rest of Africa. We must keep in mind that apartheid is a system that offends all civilized nations, and that no nation will passively accept "constructive engagement" in the South African nuclear industry. The Reagan administration is, quite frankly, making a serious political blunder.

In closing, I strongly urge the Subcommittee to take the case of South Africa very seriously, because it is a frightening example of what might happen if we do not thoroughly review our nuclear trade policy. We have a duty to prohibit exports of uranium and "dual use" technology to countries that do not adhere to recognized safeguards. Comprehensive safeguards for all transfers must be immediately imposed for the sake of the people of all nations.

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APPENDIX 21

STATEMENT SUBMITTED FOR THE RECORD BY VICTOR GILINSKY, COMMISSIONER, U.S. NUCLEAR REGULATORY COMMISSION

Chairman Zablocki, Chairman Bonker:

I regret that I am not able to be present at the October 26, 1983, joint hearing on the proposed amendments to the Nuclear Non-Proliferation Act of 1978. I appreciate having this opportunity to submit some prepared remarks for the record.

Let me begin by saying that the most important feature of both H.R. 1417 and H.R. 3058 is their recognition that the spread of nuclear explosives, highly enriched uranium and separated plutonium, and of the capacity to manufacture or acquire such materials, poses a grave threat to the security of the United States. This danger was first recognized legislatively by the far-seeing Zablocki-Findley amendment of 1976 which would have authorized reprocessing only when the Secretary of State could find that the "reliable detection of any diversion and the timely warning to the United States of such a diversion" would occur well in advance of the time at which the party diverting the material could transform it into a nuclear explosive device.

The Committee's report on that amendment stated that 'a period of at least several months' duration, certainly not less than three months," would be necessary to satisfy this requirement. The Committee went on to say that "the existing safeguards, which are essentially monitoring and accounting systems, are not now such as to permit the

Secretary of State to make an affirmative determination as to the effectiveness of safeguards applying to foreign reprocessing of U.S. nuclear material."

The bills before you properly seek to reduce the amount of highly enriched uranium and separated plutonium circulating in commerce. As a practical first step, the United States, which is the principal exporter of highly enriched research reactor fuel, should make a concerted effort to eliminate the use of such fuel both in the United States and abroad. I was pleased to convey the Nuclear Regulatory Commission's offer, at the October 24, 1983 International Meeting on Reduced Enrichment for Research and Test Reactors, to cooperate with other countries toward this end by helping resolve any safety questions which may arise in the process of converting research reactors to low enrichment fuel. With your permission, I would like to submit the text of some remarks which I made at that meeting for inclusion in the record.

Both bills before you would require that the Secretary of Defense concur in proposed Agreements of Cooperation, major nuclear exports, and subsequent arrangements. This is an important step in recognizing the national security concerns which attach to international nuclear commerce and insuring that these concerns are given their proper weight.

Beyond this, I strongly support adoption of the provisions of these bills -- which also appear in the Wolpe Amendment which recently passed the House and in the Humphrey Amendment which is pending before the Senate -- which would require full-scope safeguards, not only for the export of complete production and utilization facilities, as is currently mandated, but also for the export of all reactor components and nuclear technology. I think it important to note that the Wolpe and Humphrey amendments would close a significant loophole by requiring comprehensive safeguards for retransfers as well as for exports.

In this connection, I would bring to your attention that the Commission is unfortunately still considering amendments to its regulations which would undermine the Atomic Energy Act's full-scope safeguards requirement by narrowing the definition of the types of equipment which constitute a power reactor export. These rules would shift primary coolant pumps and reactor control rods to the "component" category, which requires the recipient to pledge only that the components themselves will be subject to International Atomic Energy Agency inspection, and leave only reactor pressure vessels and fuel charging and discharging machines in the "reactor" category which triggers the requirement that the recipient subject all of its nuclear activities to international inspection.

This change goes a long way towards nullifying Congressional intent in enacting the Atomic Energy Act's full-scope safeguards requirement, and is even contrary to President Reagan's announced policy of seeking to persuade our trading partners to adopt comprehensive safeguards as a condition of future nuclear supply. Instead of reducing the number of types of equipment which trigger this requirement, the Commission should be considering whether additional types of equipment (for example, control rod drive mechanisms and reactor internals) should be added.

In addition to proposing a cut-back of the full-scope safeguards requirement, the Commission is proposing to grant a general license for the export of any reactor component, other than pressure vessels and on-line reactor fueling machines, to eighteen designated countries. In essence, this provision would permit a manufacturer to export virtually an entire nuclear reactor without having to give notice to, or obtain the approval of, the United States Government. While the countries eligible for this general license have agreed that the U.S. has the right to prohibit the further reexport of nuclear items of U.S. provenance, it would, as a practical matter, be very difficult for this right to be exercised if the U.S. Government were not even aware that the item in question had been exported from the United States. In light of our recent experiences with the illegal export of sensitive items through the use of bogus

destinations and invoices, it is necessary to protect against the abuse of such general licenses. This general license provision should, at a minimum, be modified so that all relevant exports are reported to the U.S. Government.

The need to strengthen the export provisions of the Atomic Energy Act, and the NRC's role in nuclear export licensing, is underlined by recent events. I am distressed by the manner in which the Executive Branch recently approved the retransfer of 143 tonnes of U.S.-origin heavy water from West Germany to Argentina. I am submitting for the record a copy of the Commission's letter to Secretary Hodel concerning the failure of the Executive Branch to consult with the NRC.

This retransfer is significant because of Argentina's resistance to comprehensive safeguards. The heavy water is as vital to the operation of the reactor as the fuel, and we could not, under the terms of the Nuclear Non-Proliferation Act, send the fuel unless the President made an exception for Argentina's failure to accept comprehensive safeguards. The Department of Energy's decision to treat the retransfer of heavy water as a minor matter, not even rising to the level of significance of a subsequent arrangement, demonstrates a disregard for the policies embodied in the Nuclear Non-Proliferation Act.

In closing, Chairman Zablocki, I want to thank you for the keen personal interest which you have taken in the Non-Proliferation Act and for your long-standing support for the efforts to prevent the spread of nuclear weapons. Your leadership and your attention to these efforts as part of the overall protection of the security of this country has been vital. Thank you.

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

CHAIRMAN

October 4, 1983

The Honorable Donald Paul Hodel
Secretary of Energy
Washington, D.C. 20583

Dear Mr. Secretary:

On August 3, 1983, the Department of Energy approved a request from EURATOM to retransfer 143 metric tonnes of U.S.-origin heavy water from West Germany to Argentina. The Commission recognizes the Executive Branch's responsibility for implementing the U.S. Government's nonproliferation policy. Insofar as this policy is implemented through various export-related activities, the Commission has sought to ensure, in accordance with its statutory mandate, that NRC judgments on export matters take into account and are consistent with U.S. nonproliferation objectives. Moreover, in the great majority of export actions reviewed by the Commission since its inception, the Executive Branch has cooperated with NRC in responding to the Commission's requests for information and the Commission has then completed its review in a timely fashion. In view of this record of proper interagency consultation in conformance with the Nuclear Non-Proliferation Act's requirements, the Commission is troubled over the Executive Branch's actions in the heavy water retransfer case.

As you may know, in the Commission's view, the NRC was not provided complete and accurate information on the status of the Executive Branch review of this retransfer. In addition, the Commission believes that this approval occurred without proper consultation with NRC, despite the fact that the Department had agreed to consult with the NRC on this matter and had been informed prior to approving the retransfer that the NRC had concerns regarding this case and intended to provide comments. The NRC staff believes that the retransfer request should have been considered a subsequent arrangement as defined in the NNPA. As we informed DOE and State Department representatives in a Commission meeting held to discuss this case on September 9, this is particularly troubling in light of the potential proliferation significance of the case and the fact that a number of NRC staff questions on comparable NRC-licensed commodities for Argentina have yet to be answered

by the Executive Branch. In responding to NRC's concerns, Mr. George Bradley, DOE's Acting Assistant Secretary for International Affairs, acknowledged that the request was processed in an irregular manner and indicated regret for the lack of consultation. The Commission was not fully satisfied with Mr. Bradley's explanation of the reasons for the Department's failure to consult with NRC in the heavy water retransfer case. Nevertheless, the Commission appreciates the commitments made by Mr. Bradley during the meeting to take steps needed to assure that this situation will not be repeated in the future.

In this connection, the Commission has received proposed revisions to the interagency review procedures which, inter alia, provide for detailed consultation with NRC with respect to retransfers of nuclear commodities covered by Section 109b. of the Atomic Energy Act, as amended. We will review these proposed revisions and provide the Executive Branch with our comments in the near future. We also appreciate Mr. Bradley's assurances that while the interagency procedures remain under review, DOE will treat future retransfers as if the relevant portions of the proposed revisions were in effect.

The Commission appreciates DOE's assistance in addressing this matter and we look forward to improved cooperation with the Department and other interested Executive Branch agencies in discharging our responsibilities on nuclear export matters.

Sincerely,

Nunzio J. Palladino

Nunzio J. Palladino

cc: Ambassador Richard T. Kennedy
State Department

Remarks by Victor Gilinsky
Commissioner, U.S. Nuclear Regulatory Commission
before the Japan Atomic Energy Research Institute
International Meeting on Reduced Enrichment
for Research and Test Reactors
Tokai-mura, Japan
October 24, 1983

SHIFTING TO NON-EXPLOSIVE FUELS FOR RESEARCH REACTORS

I am very pleased to be able to participate at this International Meeting on Reduced Enrichment for Research and Test Reactors. I would like especially to thank the organizers for their kindness in giving me the opportunity to address the meeting.

I would like to commend the Japan Atomic Energy Research Institute for hosting this meeting, and all of you for participating in this very important activity.

The reason we are here is, of course, that the interests of domestic and international security are threatened by use of research reactor fuels that are nuclear explosives, that is to say, highly enriched uranium. At the same time, technological advances in fuels have made it possible to produce lower enrichment fuels for most, if not all, reactors without significant reduction in performance. We need to make the fullest use of this opportunity. To do this we will need to pool our knowledge and our experience. That is why gatherings such as this one are so important.

The United States has taken a special interest in reducing uranium fuel enrichment not only because of the security significance of this step, but also because we are the supplier of most of the highly enriched uranium in the world, which gives us a special responsibility.

There are several dozen research and test reactors which use U.S.-origin highly enriched uranium. About two-thirds of these are outside the United States. Our highly enriched uranium exports have averaged a couple of hundred kilograms annually, and there are tons of highly enriched uranium of U.S.-origin in use at any one time. Much of this fuel is highly irradiated and therefore self-protecting, but, inevitably, a good deal of it will not be.

The weapons potential of this material -- a bomb could be made using about 20 kilograms -- has dictated careful and frequent inspection by domestic and international inspectors, and tight physical security. A far higher level of protection, however, would be achieved by eliminating the weapon potential altogether. Insofar as research reactors are concerned, the best security is to make use of low-enriched fuels that cannot be exploded.

There is no firm dividing line between uranium that can be exploded and that which cannot until one gets to rather low

enrichments. Traditionally, 20 percent enrichment has been considered a reasonable dividing line between low enriched uranium and high enriched uranium and our goal should be to stay below that point. We should, in any case, try to come as close to that goal as possible.

It is interesting that in the first days of the Atoms for Peace program, our international cooperation was restricted to uranium enriched only up to 20 percent. Gradually, for reasons that are much less persuasive today, that restriction was lifted to permit export of many kilograms of almost fully enriched uranium. Among other things, no thought was given at the time to the possibility of nuclear terrorism.

We now live in a different world, in which information and techology which underly bomb design and manufacture are much more readily obtainable. I do not want to minimize the other difficulties, but the main technical barrier to making a bomb is getting the nuclear explosive material. And it is well to remember that nuclear explosives stolen or diverted at one end of our globe can be used or threatened to be used at the other end.

It would be helpful if research reactors did not use such material at all. You are all probably familiar with with the Reduced Enrichment for Research and Test Reactors

program established by the Department of Energy to develop and demonstrate the technology that will facilitate the use of reduced enrichment fuels in research and test reactors. The Nuclear Regulatory Commission is very much interested in the RERTR program and fully supports it, as we noted in a recent Statement of Policy.

The RERTR program is not just an American program, it is an international program and it can succeed only with wide support and participation. Excellent work underway at research laboratories in several countries is making a vital contribution. The cooperative spirit shown by all participants is particularly gratifying.

I know some of you are concerned about the practical difficulties you may encounter with your safety regulatory agencies in modifying your reactors. We at the Nuclear Regulatory Commission intend to demonstrate that conversion to low enriched fuel is not a difficult process by taking steps to enable domestic reactors operating in the United States to convert to low enriched fuels. We are now preparing a proposed regulation limiting the use of highly enriched uranium in domestic reactors.

In this connection, I would like to assure you here today that, with respect to safety studies and requirements, the U.S. Nuclear Regulatory Commission will be prepared to

cooperate with reactor operators from other countries in the safety area as it relates to the conversion process. We are ready to consult with you and provide assistance in this crucial area. And we expect to gain from your experience, too.

We are fortunate that this is one problem in the very vexing area of non-proliferation that has a technological solution. We should make full use of the opportunity. Not only does reducing enrichment eliminate the basic security concern much more effectively than inspection or other protection, but it reduces the security burdens on the organizations that use the fuels. Beyond that, by participating in lowering the enrichment of your research reactors you can have the personal satisfaction of knowing that you are helping to make this a safer world.

APPENDIX 22

SUPPLEMENTARY STATEMENT OF DANIEL PONEMAN

During the 20 October 1983 hearing before the Subcommittees on International Security and Scientific Affairs and International Economic Policy and Trade, my remark that the prospective U.S refusal to supply spare parts to the Tarapur atomic power station might have legal implications was characterized as untrue. It was stated that the U.S.-Indian agreement applied applied only to fuel, and not to components.

In fact, the 1963 Tarapur agreement for cooperation does apply to equipment and other non-fuel items of nuclear commerce. Article III states:

> Materials needed for use at or in connection with the Tarapur Atomic Power Station, other than source materials or the special nuclear materials required for fueling the reactors, will, when such materials are not available commercially, be transferred by the Government of the United States of America to the Government of India on such terms and conditions and in such amounts as may be mutually agreed. . . .

The agreement leaves the term "materials" undefined, but the modification "other than . . . for fueling" arguably supports the contention that Article III provides for the supply of spare parts. Further, the absence of a clause subjecting this obligation to applicable U.S. laws, regulations, and licensing requirements as was included in Article V, could be interpreted as exempting this obligation from changes in the law.

Also, Article V states that:

> It is agreed that the Government of the United States of America will permit persons under its jurisdiction to transfer and export materials, equipments and devices. . . subject to applicable laws, regulations and license requirements of the Government of the United States of America and the Government of India.

This provision could be invoked against a U.S. embargo on those spare parts for Tarapur that do not require an N.R.C. license, and hence are not constrained by the export conditions in the Nuclear Non-Proliferation Act.

I did not contend and do not believe that the United States is legally obliged to supply spare parts to India. The textual contruction favoring supply is not persuasive. Under Article III, "materials" can be interpreted to exclude spare parts, and the commercial availablity condition could excuse the U.S. obligation. Under Article V, the subjection to U.S. licensing grants the United States the right to refuse to export the spare parts. I merely stated that the existence of this possible legal challenge to the refusal of spare parts complicated the Indian case as compared to the proposed U.S. exports to Argentina and South Africa. No corresponding putative U.S. obligaton exists in the latter two cases, making it easier politically for the United States to support an embargo and, I believe, justifying my remark. On balance, as I testified, I believe that the export would not serve U.S. nonproliferation interests.

APPENDIX 23

Responses by ACDA to Questions Submitted for the Record by Representative Bonker

1.

Q: How many people does ACDA have working on non-proliferation macters?

-- How does this staffing level compare with that of a year ago?

-- Do you believe additional staff positions are needed, and, if so, in what areas?

A: Within the Nuclear and Weapons Control Bureau, there are 25 positions that have been authorized for working on non-proliferation. This total includes all categories of personnel, including career personnel as well as detailees. At present, we are in the process of filling 4 of these positions.

This level represents an increase of 6 positions from that of a year ago, and reflects the Director's commitment to ensuring that non-proliferation is accorded sufficient priority within ACDA.

The 25 staff positions currently authorized are sufficient to carry out our responsibilities.

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2. (BONKER)

Q: Please explain the respective jurisdictions of the State Department and ACDA in formulating and promoting U.S. non-proliferation policy.

-- How do the two agencies work together, and in what areas does ACDA take the lead?

A: ACDA works closely with the Department of State and other Executive Branch agencies in formulating and implementing the President's non-proliferation policy. Under Ambassador Kennedy's leadership, the State Department coordinates the implementation of most aspects of the President's policies in this area. ACDA takes the lead within the Executive Branch on the NPT, preparations for the 1985 NPT Review Conference, and on certain matters related to the Treaty of Tlatelolco and IAEA safeguards. ACDA officers are also instrumental in monitoring developments in certain countries of proliferation concern.

3. (BONKER)

Q: You stated before the Senate a few weeks ago that the Administration stresses the importance of addressing the motivations which may drive states to seek nuclear explosives.

-- What specific steps has the Administration taken, for example, in South Asia, to address these motivations?

A: With respect to Pakistan, the United States has sought to rebuild a close security relationship in the wake of the Soviet invasion of Afghanistan. The Administration has undertaken with Congress' support a six year, 3.2 billion dollar aid package, including the transfer of forty F-16 aircraft. We believe this security assistance relationship has helped and will continue to help reduce motivations to acquire nuclear explosives. At the same time, the United States has repeatedly made clear to Pakistan its continuing concerns about the direction of its nuclear program. The Pakistan Government at the highest levels is aware of our concerns, and fully understands that the provision of security assistance is inextricably linked to restraint in the nuclear area.

4. (BONKER)

Q: What is the current level of funds at your disposal for research in the non-proliferation area?

-- How does this compare with last year's levels?

-- What efforts is ACDA undertaking to improve safeguards for enrichment and reprocessing facilities?

A: ACDA's external research program for FY-1984 includes $500,000 for non-proliferation. In FY-1983, ACDA obligated funds totalling $320,000 for that subject area.

ACDA has underway two classified external research projects related to safeguards at enrichment facilities -- one regarding the IAEA safeguards approach for aerodynamic uranium enrichment plants and another regarding the documentation and analysis of IAEA safeguards at the gas centrifuge enrichment plant (GCEP). The work on these projects is being performed under reimbursable agreement with the Department of Energy by Union Carbide-Nuclear Division and by the Goodyear Atomic Corporation, respectively.

In regard to safeguards at reprocessing plants, ACDA has supported and participated in all major international efforts to assess the utility of various safeguards approaches at large commercial reprocessing plants. We are continuing in-house studies and work on this subject.

5. (BONKER)

Q: What efforts are the Administration undertaking toward the goal of full adherence to the Latin American Nuclear Weapons Free Zone Treaty, and what obstacles stand in the way?

-- What efforts has ACDA undertaken in support of a similar proposal in the Middle East and South Asia?

A: The U.S. continues to encourage the appropriate regional states and France to take the necessary action to bring the Treaty of Tlatelolco and Protocol I into force. Argentina, Brazil, Chile, and Cuba are the remaining regional holdouts. In May 1983, a Presidential statement of support for the Treaty was delivered during the biennial meeting of parties to the Treaty.

While the previous Government of Argentina stated it had no intention in the foreseeable future to acquire "peaceful nuclear explosives", it also historically took the position that Argentine adherence to the Treaty should not preclude acquisition of PNEs. As the Committee is aware, it is the U.S. position that the Treaty does not permit acquisition of PNEs by parties to the Treaty. The new Government in Argentina is reviewing its nuclear policies, and we are hopeful it may take a more positive approach to the Treaty of Tlatelolco. We will encourage adherence to the Treaty by all eligible states and positive action by Argentina. We do not believe public pressure by the U.S. on the new Government is appropriate. Brazil and Chile have been unwilling to move toward waiving the Treaty into force in the absence of further positive

action by other states that have not ratified the Treaty or its additional Protocols. Cuba has consistently insisted that the U.S. abandon the naval base at Guantanamo Bay and other security-related actions before they will take positive action on the Treaty. France has publicly indicated its support in principle for the Treaty, but has not yet ratified Protocol I (they have signed it).

The U.S. has historically supported efforts -- principally at the UN -- aimed at promoting the establishment of nuclear weapons free zones in the Middle East and South Asia, providing certain criteria are met. U.S. criteria for supporting the establishment of nuclear weapons free zones in any region of the world are as follows:

1. The initiative must originate with at least one of the states in the region.

2. In order for the initiative to be meaningful and effective, all major states in the region must participate in the establishment and implementation of the nuclear weapons free zone agreement.

3. The agreement must provide for adequate verification of compliance with the nuclear weapons free zone regime.

4. The agreement must preserve and strengthen security relationships and arrangements in the region.

5. The agreement must effectively prohibit the development, acquisition and use of any type of nuclear weapon or explosive by any state in the region.

6. The agreement must preserve the rights of free passage and transit through the region.

APPENDIX 24

RESPONSES BY ACDA TO QUESTIONS SUBMITTED FOR THE RECORD BY REPRESENTATIVE LEVINE

1.

Q: What concrete steps has the Administration taken to encourage Argentine acceptance of full-scope safeguards? of full adherence to the Treaty of Tlatelolco? of adherence to the NPT?

A: The U.S. has, on many occasions, discussed with the Argentine Government, the advantages to Argentina of accepting comprehensive (or full-scope) safeguards in terms of its regional and global standing and of enhanced peaceful nuclear cooperation with the United States and others. While we have encouraged Argentina to give favorable consideration to NPT adherence, we have emphasized Argentine adherence to the Treaty of Tlatelolco, since they have expressed a preference for that Treaty.

I can assure you we have made clear to the GOA our views on the desirability of acceptance of full-scope safeguards and adherence to the Treaty of Tlatelolco. The new Government has publicly announced that it is undertaking a review of Argentina's nuclear policies, and we hope that such a review may result in more forthcoming nuclear policies by Argentina. One of the arguments used against acceptance of safeguards by Argentine opponents of such a policy is that such a step would be taken in response to pressure from abroad. We believe that an approach which avoids the appearance of U.S. pressure on the GOA is the best position with the new Argentine Government.

2. (LEVINE)

Q: Considering the length of time Argentina has spent negotiating on its safeguards agreement with the IAEA, what is your assessment of the seriousness of the negotiations and any probable safeguards agreement coming to force? Are the Argentines merely using these negotiations as a stalling technique until they complete an indigenous independent nuclear program?

A: It would serve no useful purpose to comment on the position of the previous Argentine Government on these negotiations. The new Government of Argentina is currently conducting a nuclear policy review which should be concluded in the near future, and we are hopeful that the outcome of this review would result in progress in the negotiations with the IAEA.

3. (LEVINE)

Q: What is the operating history and status and the efficiency record of safeguards application in Argentina?

A: Since 1964, Argentina has had 12 safeguards agreements with the IAEA enter into force. While not all facilities in Argentina are covered by safeguards under these agreements, a variety of reactors, nuclear material, heavy water, equipment, and facilities are being safeguarded by the IAEA. The IAEA stated in its most recent Annual Report that, as in previous years, it did not detect any anomaly that would indicate the diversion of a significant amount of safeguarded nuclear material or the misuse of facilities or equipment subject to safeguards. We hope that with the new government in office, Argentina will ratify and bring into force the Treaty of Tlatelolco. Adherence and negotiation of a single safeguards agreement would enable the IAEA to apply safeguards more uniformly and efficiently in Argentina.

4. (LEVINE)

Q: What is the probability that the Argentines have diverted any material from any of their reactors?

A: The operating power reactors in Argentina are the Atucha I and Embalse power reactors, both of which are covered by IAEA safeguards agreements. The IAEA reported in its latest Annual Report that it has not detected any anomaly that would indicate a diversion of a significant amount of nuclear material. This statement also applied to the four research reactors in Argentina where IAEA safeguards were being applied. We are continuing to take steps to ensure that the IAEA has the requisite resources and techniques to accomplish its objectives as an effective international safeguards system.

5. (LEVINE)

Q: Please list some specific initiatives you have taken with other countries to encourage full-scope safeguards, safeguards on their exports, and adherence to non-proliferation objectives.

A: Consultations with other major nuclear supplier states on matters of mutual non-proliferation concern are an important element of the Administration's non-proliferation policy. Some of these consultations have focussed specifically on encouraging these suppliers to require comprehensive safeguards on any significant new nuclear supply commitments to non-nuclear weapon states. U.S. efforts on comprehensive safeguards have included public and private communications by President Reagan; and many discussions with other governments under the leadership of Ambassador-at-Large Richard Kennedy. The U.S. has made available to those governments

suggestions on possible definition and implementation of the President's comprehensive safeguards initiative, and we continue to discuss the matters with others in an effort to further progress on that initiative.

The U.S. has urged emerging supplier countries to adopt controls that would help protect against the misuse of their nuclear exports, including acceptance by the recipient of IAEA safeguards. U.S. initiatives aimed at encouraging broader acceptance of other non-proliferation objectives focus on inter alia wider adherence to the NPT and support for the IAEA and its safeguards systems.

6. (LEVINE)

Q: When was the most recent meeting of the London Supplier Group to formulate an agreed position on export policy? If the suppliers have not met as a group, why not? Please list some of the most recent meetings with various suppliers and initiatives we are undertaking to discourage exports which undercut non-proliferation goals and objectives.

A: The London Suppliers Group has not met as a formal group since 1977. Virtually all members of the Group prefer to pursue their mutual supplier responsibilities on a bilateral basis due to the extremely negative reaction of many developing countries to the highly publicized meetings of the Group in 1975-77. However, lack of such formal meetings has not resulted in any diminution of effort among major supplier countries. There have been multilateral meetings over the past year among NPT supplier states to clarify the existing lists of items which when exported trigger a requirement for IAEA safeguards. Furthermore, over the past year, Ambassador Kennedy has met at least 20 times

with major supplier states, either on the margins of international meetings, in their capitals, or in Washington. These consultations have dealt with issues including comprehensive safeguards, IAEA and NPT matters, and nuclear exports to certain countries. In addition, there have been regular meetings in Washington and abroad between other senior U.S. officials and representatives of supplier countries. Finally, U.S. Embassies abroad have carried out regular demarches to other suppliers on export issues of concern.

7. (LEVINE)

Q: When meeting with heads of state or other foreign leaders, with what frequency and importance does the President and/or the Secretary of State raise the issue of non-proliferation?

A: The President and the Secretary are acutely aware of the importance of non-proliferation to U.S. and international security objectives. They have raised this topic, whenever appropriate, in their meetings with other leaders as well as in written communication.

APPENDIX 25

Responses by NRC to Questions Submitted for the Record by Representative Bonker

The Honorable Dante B. Fascell, Chairman
Subcommittee on International Security
and Scientific Affairs
Committee on Foreign Affairs
United States House of Representatives
Washington, D.C. 20515

Dear Mr. Chairman:

Enclosed are the answers to questions for the record of the October 26, 1983 hearing on nuclear non-proliferation issues. It has been brought to our attention that it could be helpful to supplement in certain areas the testimony which I gave before your Subcommittee on October 26 regarding proposed legislation to strengthen the Nuclear Non-Proliferation Act of 1978.

With regard to the Subcommittee's question on exports of high-enriched uranium (HEU), since 1975, when NRC was established, the Commission has issued over 150 major export licenses and license amendments involving a total of about 6,000 kilograms of HEU. (Major cases are those for over 1 kilogram each, and HEU is defined as uranium enriched to 20% or more.) These were for export to Austria, Belgium, Canada, Denmark, France, Greece, Italy, Japan, Mexico, the Netherlands, Sweden, Switzerland and West Germany. The greatest volume of applications approved was in 1981, when 38 major licenses and license amendments were issued involving somewhat over 1,700 kilograms of HEU. In 1983 five cases were approved involving a total of about 80 kilograms of HEU. Of the HEU licensed for export, an increasing amount (about 275 kilograms to date) has been of 45% enriched material which is being utilized by several foreign reactor operators participating in the Department of Energy's Reduced Enrichment in Research and Test Reactor (RERTR) program. As I noted at the hearing, the Commission strongly supports this program, which is making significant progress in the development of lower enrichment fuels for the majority of research reactors currently fueled with HEU. Also as indicated by my testimony on October 26, all exports of HEU are subject to rigorous review and analysis by both the Commission and the Executive Branch and are approved only if the recipient countries have good nonproliferation credentials, including full scope safeguards application by the IAEA if the recipient is a nonnuclear weapons state.

In my testimony I noted that the Commission had expressed concern over the lack of adequate time and information to consult on a group of recent approvals transferring nuclear technology and assistance to South Africa's Koeberg reactors. I would like to point out that these cases involve the export by several U.S. firms of various support services for these light

water power reactors and do not involve the export of any sensitive nuclear technology. The Commission's formal comments to DOE regarding these requests are enclosed.

Finally, I would like to inform you that the Commission has decided not to recommend any changes to the definition of a utilization facility in our export licensing regulations. Accordingly, it is our intention that such items as primary coolant pumps and reactor control rods continue to be subject to the most stringent export licensing criteria, including full-scope safeguards. The Commission's other proposed changes to our export licensing regulations were published in the Federal Register on March 1. Any additional comments you may have on these proposed changes would be welcome.

I trust this additional information is helpful. Please let me know if NRC can be of further assistance.

Sincerely,

Nunzio J. Palladino
Chairman

Enclosures:
As stated

cc: The Honorable William S. Broomfield

NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

September 29, 1983

Dr. Julio L. Torres, Director
Office of International Security Affairs
U. S. Department of Energy
Washington, D. C. 20585

Dear Dr. Torres:

With reference to your letter of September 27 concerning several pending Part 810 requests for the Koeberg power reactors in South Africa, this will advise that NRC notes DOE's plans to approve the requests in the attached listing.

The Commission is concerned that the Executive Branch has not provided NRC with adequate time and information to formulate its final comments on these requests. While we have attempted to expedite our review of these cases, and in this regard appreciate DOE's preliminary analyses, the Commission cannot properly be expected to fulfill its statutory consultation responsibilities without first examining the relevant final policy decisions of the Executive Branch with respect to U.S. nuclear cooperation with the country concerned. Accordingly, as you are aware, the Commission staff, following the standard provisions of Part D, Section 1.c. of the interagency review procedures, informed DOE after each South African 810 case was received that certain additional information and analysis would be necessary before the Commission would complete its review. On September 22 the NRC staff further clarified the factors NRC would like to be addressed in DOE's final analyses on the South African 810 cases.

DOE's final views were received by the NRC staff on September 27 and by the Commission on September 28. While these views do not fully respond to NRC's request, the Commission is prepared to use them as a basis for providing the following comments. The Commission does not dispute DOE's authority to proceed immediately to authorize the proposed transfers if it believes that all statutory requirements are met. We note, however, that even in such circumstances the interagency procedures provide that all concerned agencies normally will be given at least five working days notice. Adequate advance notification is, in NRC judgment, particularly important when new policies, sensitive countries and significant transfers are all involved.

UPON REMOVAL OF ATTACHMENT
THIS DOCUMENT IS:
NON-PROPRIETARY

PROPRIETARY INFORMATION

It was the Commission's understanding, as you informed us in your May 5, 1983 analysis of the pending Part 810 request submitted by Westinghouse, that for the past several months a policy review regarding nuclear exports and assistance to South Africa was being undertaken and that action on the pending Part 810 requests would be withheld until its completion. We note that, in recommending approval of the pending requests, the Executive Branch has provided a limited clarification of U.S. nuclear export policy towards South Africa which applies only with respect to technical support services for Koeberg. It would have been helpful to have a more definitive statement on U.S. nuclear export policy towards South Africa prior to approval of the pending Part 810 requests, particularly since the approval of these requests expands the range of nuclear cooperation actions with South Africa beyond those previously authorized for consideration. Previous policy guidelines for South Africa, as stated by Principal Deputy Assistant Secretary of State Harry Marshall on December 2, 1982, permitted the export of non-sensitive nuclear related commodities for use in safeguarded South African facilities only for "purposes related to health and safety", which was not a factor cited in support of approval of the Part 810 requests.

In view of this apparent revision to South African nuclear export policy guidelines and the relevance of the policy issue with respect to future DOE Part 810 requests for non-Koeberg end-uses, as well as for all pending and future Commerce and NRC export license applications for South Africa, the Commission requests additional guidance regarding U.S. nuclear export policy towards South Africa. For example, does current policy also permit the favorable consideration of proposed Commerce-or NRC-licensed exports to Koeberg, or, for that matter, any non-sensitive nuclear exports which exceed the constraints of the Part 810 request for Koeberg? NRC would also appreciate DOE's response to the questions raised in my letter to you of September 22. Clarification of these matters will facilitate the Commission's consideration of any further export-related actions involving South Africa. Thank you for your cooperation on this matter.

Sincerely,

James R. Shea

James R. Shea, Director
Office of International Programs

Attachment:
List of Proposed Technology
Transfers to South Africa

cc: James B. Devine, State Department

PROPRIETARY INFORMATION

QUESTION 1. (A) COULD YOU ELABORATE ON YOUR STATEMENT THAT "FORMIDABLE PRACTICAL DIFFICULTIES" WOULD ACCOMPANY EFFORTS, SUCH AS THAT IN SECTION 18 OF H.R. 3058, TO BETTER CONTROL ACTIVITIES BY INTERNATIONAL AFFILIATES OF U.S. FIRMS WHICH MIGHT UNDERCUT U.S. NON-PROLIFERATION POLICY?

ANSWER.

THE IMPLEMENTATION OF AN EFFECTIVE REGULATORY PROGRAM TO CONTROL THE EXPORT ACTIVITIES OF FOREIGN AFFILIATES OF U.S. FIRMS WOULD REQUIRE SOME MEANS TO (1) IDENTIFY ALL POSSIBLE INVOLVED U.S. PARENT FIRMS, (2) ENSURE THAT DETAILED INFORMATION ON APPROVAL REQUIREMENTS FOR THE CONTROLLED FOREIGN ACTIVITIES IS TRANSMITTED PROPERLY TO AFFILIATED FIRMS ABROAD, (3) IMPLEMENT A PRACTICAL SYSTEM FOR REFERRING APPROVAL REQUESTS FROM THE FOREIGN AFFILIATE THROUGH THE U.S. PARENT TO THE APPROPRIATE U.S. REGULATORY AGENCY. SUCH A PROGRAM, ALTHOUGH NOT IMPOSSIBLE TO IMPLEMENT, COULD BE CUMBERSOME AND WOULD REQUIRE ADDITIONAL RESOURCES.

QUESTION 1. (B) WHAT MIGHT BE A BETTER WAY TO CONTROL SUCH ACTIVITIES?

ANSWER.

THE MOST PRACTICAL AND EFFECTIVE MEANS TO CONTROL THE ACTIVITIES OF CONCERN WOULD BE TO OBTAIN MULTILATERAL AGREEMENT AMONG THE NUCLEAR SUPPLIER NATIONS TO APPLY COMMON EXPORT CONTROLS ON THEIR NUCLEAR COMMERCE.

UNILATERAL EXPORT CONTROLS ON FOREIGN AFFILIATES ARE NOT ONLY DIFFICULT TO IMPLEMENT, BUT ALSO CAN BE INEFFECTIVE BECAUSE OF THE AVAILABILITY OF ALTERNATE FOREIGN SUPPLIERS.

QUESTION 1. (C) DO YOU BELIEVE THE ENACTMENT OF THIS SECTION WOULD AMOUNT TO AN EXTRA-TERRITORIAL APPLICATION OF U.S. LAW?

ANSWER.

YES. THIS WOULD, AT THE SAME TIME, NOT NECESSARILY BE INCONSISTENT WITH INTERNATIONAL LAW. HOWEVER, IT IS DIFFICULT TO ENVISION HOW SUCH A PROVISION COULD BE ENFORCED.

QUESTION 2. (A) HOW MUCH TIME DOES THE COMMISSION CURRENTLY SPEND REVIEWING NUCLEAR EXPORT LICENSE APPLICATIONS?

ANSWER.

THE COMMISSION ITSELF SPENDS LESS THAN FIVE PER CENT OF ITS TIME REVIEWING NUCLEAR EXPORT LICENSING APPLICATIONS, INCLUDING THE REVIEW OF NUCLEAR EXPORT RELATED ACTIVITIES UNDER THE AUTHORITY OF OTHER U.S. GOVERNMENT AGENCIES. THE NRC STAFF EFFORT DEVOTED TO THIS AREA IS ABOUT ½ OF 1% OF THE TOTAL NRC STAFF OF 3300, CENTERED IN THE OFFICE OF INTERNATIONAL PROGRAMS.

QUESTION 2. (B) DOES THIS, AS SOME HAVE ARGUED, DETRACT FROM THE PRINCIPAL RESPONSIBILITY OF THE NRC REGARDING DOMESTIC NUCLEAR SAFETY?

ANSWER.

WE DO NOT BELIEVE CONDUCTING THESE ACTIVITIES AT THE CURRENT LEVEL OF EFFORT DETRACTS IN ANY SIGNIFICANT WAY FROM THE COMMISSION'S PRIMARY RESPONSIBILITIES IN THE AREA OF DOMESTIC NUCLEAR SAFETY.

QUESTION 3. WITH REFERENCE TO THE PROPOSED CHANGE IN EXPORT LICENSING REGULATIONS, HOW IS IT PLAUSIBLE THAT THE NRC STAFF "HAS CONCLUDED" THIS PROPOSED CHANGE WILL NOT "ADVERSELY [AFFECT] CURRENT EXPORT CONTROL . . . POLICY GUIDELINES" WHEN THE ADMINISTRATION HAS ANNOUNCED ITS EFFORTS TO STRENGTHEN INTERNATIONAL NUCLEAR EXPORT CONTROLS THROUGH ITS SO-CALLED "COMPREHENSIVE SAFEGUARDS INITIATIVE?" DOESN'T THIS PROPOSAL WEAKEN U.S. CONTROLS AT THE SAME TIME THE ADMINISTRATION IS SEEKING A CONSENSUS TO STRENGTHEN NUCLEAR EXPORT CONTROLS?

ANSWER.

THE PROPOSED AMENDMENTS TO NRC'S EXPORT LICENSING REGULATIONS, WHICH HAVE NOW BEEN APPROVED BY THE COMMISSION AND PUBLISHED IN THE FEDERAL REGISTER ON MARCH 1, WOULD REDUCE LICENSING REQUIREMENTS FOR CERTAIN NUCLEAR EXPORTS WITH MINIMAL PROLIFERATION SIGNIFICANCE. THE EXECUTIVE BRANCH HAS CONCURRED IN THE PROPOSED AMENDMENTS AND INFORMED THE COMMISSION THAT THEY WOULD NOT CONFLICT WITH THE ADMINISTRATION'S COMPREHENSIVE SAFEGUARDS INITIATIVE, WHICH IS FOCUSED ON UPGRADING SAFEGUARDS ON EXPORTS OF POTENTIAL PROLIFERATION CONCERN.

QUESTION 4. (A) REGARDING THE NRC STAFF PROPOSAL TO PERMIT A GENERAL LICENSE FOR EXPORTS TO A LIST OF CERTAIN COUNTRIES, WHAT QUALIFICATIONS ARE REQUIRED FOR A COUNTRY TO BE SO LISTED?

ANSWER.

THE COUNTRIES ELIGIBLE FOR FAVORABLE NUCLEAR MATERIALS GENERAL LICENSE TREATMENT PRIMARILY INCLUDE ADHERENTS TO THE NUCLEAR NON-PROLIFERATION TREATY (NPT), EXCEPT FOR LIBYA, IRAQ, AND IRAN. IN ADDITION, SPAIN, WHICH APPLIES IAEA SAFEGUARDS TO ALL OF ITS FACILITIES, AND FRANCE AND THE PEOPLES REPUBLIC OF CHINA, AS NUCLEAR WEAPONS STATES, ARE INCLUDED.

THE COUNTRIES ELIGIBLE FOR FAVORABLE TREATMENT UNDER THE PROPOSED REACTOR COMPONENT GENERAL LICENSE MUST HAVE EXCELLENT NON-PROLIFERATION CREDENTIALS. EXCEPT FOR FRANCE, WHICH IS A NUCLEAR WEAPONS STATE, AND SPAIN, WHICH APPLIES IAEA SAFEGUARDS TO ALL OF ITS NUCLEAR FACILITIES, ALL OF THE COUNTRIES LISTED ARE ADHERENTS TO THE NUCLEAR NON-PROLIFERATION TREATY (NPT). IN ADDITION, EACH OF THESE COUNTRIES MUST HAVE PROVIDED WRITTEN ASSURANCES TO THE U.S. GOVERNMENT THAT REEXPORT OF ANY U.S.-SUPPLIED REACTOR COMPONENTS WILL BE BE MADE WITHOUT PRIOR U.S. APPROVAL.

QUESTION 4. (B) WHY IS SUCH A MOVE NECESSARY, SINCE MOST OF THESE COUNTRIES WOULD AUTOMATICALLY RECEIVE AN EXPORT LICENSE UNDER CURRENT REGULATIONS?

ANSWER.

APPLICATIONS FOR COMMODITIES COVERED BY THE PROPOSED NEW GENERAL LICENSES ARE ALREADY APPROVED IN A ROUTINE FASHION WHEN THEY ARE DESTINED FOR THOSE COUNTRIES PROPOSED FOR FAVORABLE GENERAL LICENSE TREATMENT. THE PROPOSED AMENDMENTS ARE INTENDED TO SUPPORT U.S. NONPROLIFERATION POLICY OBJECTIVES BY REDUCING UNNECESSARY PAPERWORK AND PROCEDURAL REQUIREMENTS FOR COUNTRIES WITH GOOD NONPROLIFERATION CREDENTIALS. NRC'S EXISTING REGULATIONS ESSENTIALLY TREAT ALL COUNTRIES ALIKE AND CONTAIN NO INCENTIVES (AS DO THOSE OF THE ENERGY AND COMMERCE DEPARTMENTS) FOR IMPORTING COUNTRIES TO ADOPT OR CONTINUE TO ADHERE TO SOUND NONPROLIFERATION POLICIES. THE PROPOSED GENERAL LICENSES WOULD ALSO ALLOW INCREASED NRC STAFF EFFORT TO BE DEVOTED TO CASES WITH POTENTIAL PROLIFERATION SIGNIFICANCE.

QUESTION 4. (C) AGAIN, ISN'T THIS THE WRONG SIGNAL FOR THE U.S. TO SEND WHEN OUR GOVERNMENT IS ENCOURAGING OTHER SUPPLIERS TO CONTROL THEIR NUCLEAR EXPORTS MORE EFFECTIVELY?

ANSWER.

THE PROPOSED AMENDMENTS ARE QUITE MODEST IN SCOPE AND DO NOT CONFLICT WITH THE U.S.' LONG-STANDING EFFORTS TO ACHIEVE MORE EFFECTIVE INTERNATIONAL NONPROLIFERATION CONTROLS ON NUCLEAR TRADE. NRC'S EXPORT LICENSING REGULATIONS, EVEN IF THE PROPOSED AMENDMENTS ARE ADOPTED, WOULD STILL BE MUCH MORE STRINGENT THAN COMPARABLE EXPORT CONTROL REGULATIONS OF THE OTHER MAJOR NUCLEAR SUPPLIER NATIONS.

QUESTION 5. WHAT IS THE RATIONALE FOR INCREASING THE GENERAL LICENSE LIMIT FOR SOURCE MATERIAL FROM ONE TO TEN KILOGRAMS?

ANSWER.

NATURAL URANIUM HAS BECOME INCREASINGLY AVAILABLE IN INTERNATIONAL TRADE IN RECENT YEARS, EVEN IN THOSE COUNTRIES WHICH DO NOT HAVE GOOD NONPROLIFERATION CREDENTIALS. ALSO, RELATIVELY LARGE AMOUNTS OF NATURAL URANIUM OR OTHER SOURCE MATERIAL ARE NEEDED TO PRODUCE SIGNIFICANT AMOUNTS OF WEAPONS-GRADE SPECIAL NUCLEAR MATERIAL, EITHER THROUGH URANIUM ENRICHMENT OR THROUGH THE REPROCESSING OF IRRADIATED SOURCE MATERIAL. AS A ROUGH GUIDE TO QUANTITIES OF PROLIFERATION SIGNIFICANCE, THE IAEA PERMITS UP TO 10 METRIC TONS PER COUNTRY OF NATURAL URANIUM TO BE EXEMPTED FROM SAFEGUARDS REQUIREMENTS. THE COMMISSION NOTES THAT SEVERAL EXPORT LICENSES HAVE BEEN ISSUED ROUTINELY IN THE PAST FOR ONE TO TEN KILOGRAM AMOUNTS OF SOURCE MATERIAL FOR VARIOUS ACCEPTABLE RESEARCH AND TEST END-USES AND AS CONTAMINANTS IN CERTAIN ORES, AND, ACCORDINGLY, BELIEVES THAT THE PROPOSED 10 KILOGRAM LIMIT IS SUFFICIENTLY CONSERVATIVE TO ENSURE THAT PROLIFERATION-SIGNIFICANT QUANTITIES COULD NOT BE ACCUMULATED ABROAD.

QUESTION 6. (A) WHAT IS THE GENERAL VIEW OF THE NRC REGARDING THE ADEQUACY OF INTERNATIONAL ATOMIC ENERGY AGENCY SAFEGUARDS?

ANSWER.

THE APPLICATION OF IAEA SAFEGUARDS PLAYS AN IMPORTANT ROLE IN ASSURING THAT NUCLEAR MATERIALS ARE MAINTAINED WITHIN PEACEFUL NUCLEAR ACTIVITIES. ALTHOUGH IMPROVEMENTS ARE REGULARLY MADE IN THE IAEA SAFEGUARDS PROGRAM, WE RECOGNIZE THERE ARE SHORTCOMINGS IN THE PRESENT CAPABILITIES OF THE IAEA TO TIMELY DETECT DIVERSION DUE TO RESOURCE, TECHNICAL AND POLITICAL LIMITATIONS. IN A NOVEMBER 27, 1981 LETTER TO CONGRESS, THE COMMISSION INDICATED ITS CONCERNS THAT THE IAEA SAFEGUARDS SYSTEM WOULD NOT DETECT A DIVERSION IN AT LEAST SOME TYPES OF FACILITIES. WHILE IMPROVEMENTS IN THE APPLICATION OF SAFEGUARDS HAVE OCCURRED SINCE THAT TIME, THE COMMISSION CONTINUES TO HAVE SOME CONCERN AND NOTES THAT FURTHER IMPROVEMENTS IN THE EFFECTIVENESS OF IAEA SAFEGUARDS ARE DESIRABLE. FOR EXAMPLE, SAFEGUARDS APPROACHES FOR LARGE REPROCESSING PLANTS AND OTHER FACILITIES PROCESSING PLUTONIUM OR HIGHLY ENRICHED URANIUM REQUIRE FURTHER DEVELOPMENT. IN ADDITION, WE ARE NOT CONFIDENT THAT THE MEMBER STATES WOULD BE NOTIFIED OF A DETECTED DIVERSION IN A TIMELY FASHION.

QUESTION 6. (B) WHAT PARTICULAR EFFORTS IS THE COMMISSION TAKING TO DEVELOP BETTER SAFEGUARDS FOR SENSITIVE NUCLEAR ACTIVITIES, SUCH AS REPROCESSING AND ENRICHMENT?

ANSWER.

THE COMMISSION CONTRIBUTES TO THE IMPROVEMENT OF IAEA SAFEGUARDS -- IN PARTICULAR SAFEGUARDS ON SENSITIVE FACILITIES -- THROUGH PARTICIPATION IN VARIOUS INTERAGENCY BODIES WHICH HAVE BEEN ESTABLISHED TO COORDINATE AND IMPLEMENT U.S. EFFORTS IN THIS AREA. THESE INCLUDE THE INTERAGENCY STEERING GROUP ON INTERNATIONAL SAFEGUARDS, THE ACTION PLAN WORKING GROUP, THE TECHNICAL SUPPORT COORDINATING COMMITTEE AND THE US/IAEA SAFEGUARDS AGREEMENT WORKING GROUP. IN THIS CONNECTION NRC HAS SPONSORED TECHNICAL STUDIES TO SUPPORT DEVELOPMENT OF U.S. POSITIONS ON THE GOALS OF IAEA SAFEGUARDS AND FACILITY DESIGN FEATURES TO FACILITATE IMPLEMENTATION OF IAEA SAFEGUARDS. NRC REPRESENTATIVES HAVE ALSO PARTICIPATED IN IAEA CONSULTANT AND ADVISORY GROUP MEETINGS WHICH ESTABLISH SAFEGUARD APPROACHES AND BILATERAL MEETINGS WITH OTHER STATES ACTIVELY SEEKING IMPROVEMENTS IN THE EFFECTIVENESS OF IAEA SAFEGUARDS.

EFFECTIVE PROCEDURES FOR THE APPLICATION OF IAEA SAFEGUARDS AT LARGE REPROCESSING AND ENRICHMENT PLANTS HAVE YET TO BE FULLY DEFINED AND IMPLEMENTED. A SAFEGUARDS APPROACH FOR GAS CENTRIFUGE ENRICHMENT PLANTS WAS RECENTLY OUTLINED BY THE HEXAPARTITE SAFEGUARDS PROJECT, BUT THE EFFECTIVENESS OF THE APPROACH, IN ACTUAL APPLICATION, IS YET TO BE DETERMINED.

THE IAEA IS NOW TAKING STEPS TO IMPLEMENT THIS APPROACH WHICH SHOULD IMPROVE THE APPLICATION OF SAFEGUARDS AT LARGE REPROCESSING FACILITIES. THE APPLICATION OF SAFEGUARDS AT THESE FACILITIES CONTINUES TO PRESENT SIGNIFICANT CHALLENGES TO THE

IAEA. AS THE COMMISSION HAS PREVIOUSLY NOTED, THESE FACILITIES ARE INHERENTLY DIFFICULT TO SAFEGUARD. THE COMMISSION IS HOPEFUL THAT AN INTERNATIONAL EFFORT, POSSIBLY SIMILAR TO THAT EXPENDED FOR GAS CENTRIFUGE ENRICHMENT PLANTS, CAN BE ORGANIZED TO FACILITATE AN EFFECTIVE SAFEGUARDS APPROACH FOR REPROCESSING FACILITIES. OUR STAFF WILL WORK CLOSELY WITH THE EXECUTIVE BRANCH TO PURSUE THIS OBJECTIVE.

QUESTION 6. (C) WHAT ARE THE PROSPECTS FOR MEETING THE "TIMELY WARNING" CRITERION IN THE NUCLEAR NON-PROLIFERATION ACT OF 1978 WITH REGARD TO THESE SENSITIVE ACTIVITIES?

ANSWER.

THE COMMISSION NOTES THAT "TIMELY WARNING" IS THE FACTOR TO BE GIVEN FOREMOST CONSIDERATION IN THE FINDING BY THE SECRETARIES OF ENERGY AND STATE THAT SUBSEQUENT ARRANGEMENTS FOR REPROCESSING OR FOR THE RETRANSFER OF SEPARATED PLUTONIUM WILL NOT RESULT IN A SIGNIFICANT INCREASE OF THE RISK OF PROLIFERATION BEYOND THAT WHICH EXISTS AT THE TIME THAT APPROVAL IS REQUESTED. ON SEVERAL OCCASIONS SINCE THE PASSAGE OF THE NNPA, THE DEPARTMENTS OF ENERGY AND STATE HAVE MADE THE REQUIRED FINDING THAT SUBSEQUENT ARRANGEMENTS FOR REPROCESSING OR FOR THE RETRANSFER OF SEPARATED PLUTONIUM WOULD NOT RESULT IN A SIGNIFICANT INCREASE IN THE RISK OF PROLIFERATION. THIS FINDING HAS INCLUDED CONSIDERATION OF WHETHER OR NOT THE SUBSEQUENT ARRANGEMENT WILL TAKE PLACE UNDER CONDITIONS THAT WILL ENSURE "TIMELY WARNING." IN REVIEWING THE EXECUTIVE BRANCH'S "NO SIGNIFICANT INCREASE IN THE RISK OF PROLIFERATION" FINDING, THE COMMISSION RELIES ON OTHER RELEVANT

INFORMATION SOURCES, INCLUDING INTELLIGENCE REPORTS, AND ON THE NONPROLIFERATION CREDENTIALS OF THE COUNTRIES INVOLVED. WHILE IMPROVEMENTS IN IAEA SAFEGUARDS CAPABILITIES FOR SENSITIVE FACILITIES CAN HELP ENSURE THAT TIMELY WARNING IS POSSIBLE, THE INHERENT TECHNICAL DIFFICULTIES IN PROVIDING FOR ADEQUATE SAFEGUARDS ON LARGE QUANTITIES OF SEPARATED PLUTONIUM WILL PROBABLY CONTINUE TO REQUIRE RELIANCE ON CONSIDERATIONS OTHER THAN "TIMELY WARNING" IN MAKING THE "NO SIGNIFICANT INCREASE IN THE RISK OF PROLIFERATION" FINDING.

COMMISSIONER GILINSKY ADDS:

BECAUSE THEY CAN BE INCORPORATED IN A NUCLEAR WEAPON WITHIN A MATTER OF DAYS, HIGHLY ENRICHED URANIUM AND PLUTONIUM CANNOT BE SAFEGUARDED BY THE IAEA IN A FASHION WHICH WOULD ENSURE TIMELY WARNING TO THE UNITED STATES OF THEIR DIVERSION. I WOULD EMPHASIZE THAT THE CONCEPT OF TIMELY WARNING REQUIRES THAT THERE BE ENOUGH TIME TO DEFEAT THE ATTEMPT TO MANUFACTURE NUCLEAR WEAPONS.

QUESTION 7. DO YOU HAVE ANY COMMENTS ON THE WOLPE AMENDMENT TO THE EXPORT ADMINISTRATION ACT, WHICH WOULD REQUIRE FULL-SCOPE SAFEGUARDS AS A PRECONDITION FOR NRC'S LICENSING OF COMPONENTS FOR EXPORT?

ANSWER.

IN KEEPING WITH THE COMMISSION'S LONG-STANDING PRACTICE ON PROPOSED CHANGES TO U.S. NUCLEAR EXPORT LEGISLATION, OUR COMMENTS CONCERN ONLY THOSE ASPECTS OF THE AMENDMENTS WHICH AFFECT NRC'S LICENSING RESPONSIBILITIES.

EXCEPT FOR EXPORTS FOR MEDICAL AND OTHER NONNUCLEAR END-USES OF SMALL AMOUNTS OF HEAVY WATER AND NUCLEAR GRADE GRAPHITE, THE VAST MAJORITY OF NRC COMPONENT EXPORTS NOW GO TO FACILITIES IN COUNTRIES WHICH, BECAUSE THEY ARE PARTIES TO THE NPT, ACCEPT FULL-SCOPE SAFEGUARDS. ACCORDINGLY, THE WOLPE AMENDMENT WOULD PROBABLY AFFECT ONLY A SMALL NUMBER OF NRC EXPORT LICENSE APPLICATIONS. THE PRINCIPAL IMPACT WOULD BE ON POSSIBLE REACTOR SPARE PARTS EXPORTS TO SUCH COUNTRIES AS INDIA, BRAZIL, ARGENTINA, ISRAEL, PAKISTAN AND SOUTH AFRICA.

COMMISSIONER GILINSKY ADDS:

REACTOR COMPONENTS AND SPARE PARTS SHOULD BE SUBJECT TO THE SAME FULL-SCOPE SAFEGUARDS REQUIREMENTS AS REACTORS THEMSELVES.

QUESTION 8. IN YOUR LETTER OF JUNE 28, 1983, CHAIRMAN PALLADINO, YOU NOTE YOUR "REGRET THAT THE BILL [H.R. 1417] DOES NOT ADDRESS WHETHER THE NRC MUST CONSIDER ADEQUACY OF IAEA SAFEGUARDS AND HOW ADEQUACY IS TO BE DEFINED."

(A) SHOULD THE NRC BE GIVEN THE RESPONSIBILITY TO ADDRESS QUESTIONS OF SAFEGUARDS ADEQUACY AND, IF SO, ARE YOU CONFIDENT YOU COULD MAKE ANY DETERMINATIONS OF SUCH ADEQUACY.

ANSWER.

THE COMMISSION WOULD HAVE NO OBJECTION TO THE CONGRESS CODIFYING THE COMMISSION'S CURRENT APPROACH TO SAFEGUARDS ADEQUACY THAT IS DESCRIBED BELOW. CHAIRMAN PALLADINO BELIEVES IT IS IMPORTANT TO CLARIFY THE ISSUE SO THAT IT IS UNDERSTOOD THAT OUR CAPABILITIES ARE LIMITED ESSENTIALLY TO WHAT WE NOW DO. THE COMMISSION WOULD NOTE THAT, IF CONGRESS ASSIGNS THE COMMISSION THE SIGNIFICANTLY GREATER RESPONSIBILITY TO DETERMINE THE ADEQUACY OF IAEA SAFEGUARDS AS THE COMMISSION NOW DETERMINES THE ADEQUACY OF DOMESTIC SAFEGUARDS, THE COMMISSION WOULD NEED SUBSTANTIAL ADDITIONAL RESOURCES FOR INSPECTION AND AUDITING OF THE IAEA SAFEGUARDS SYSTEM. EVEN WITH THESE RESOURCES, IT IS DOUBTFUL THAT NRC COULD SECURE THE NECESSARY ACCESS TO IAEA SAFEGUARDS INFORMATION TO CARRY OUT THE SIGNIFICANTLY GREATER RESPONSIBILITY.

UNDER CURRENT ARRANGEMENTS, THE COMMISSION HAS CONSIDERED, AND WILL CONTINUE TO CONSIDER, THE ADEQUACY OF IAEA SAFEGUARDS AS A RELEVANT FACTOR IN MAKING THE REQUIRED STATUTORY DETERMINATIONS PRIOR TO APPROVING NRC EXPORT LICENSES. ALTHOUGH INDIVIDUAL COMMISSIONERS MAY DISAGREE AS TO WHETHER SAFEGUARDS ADEQUACY SHOULD BE CONSIDERED IN CONNECTION WITH THE INIMICALITY FINDING OR IN CONNECTION WITH THE APPLICATION OF THE SAFEGUARDS (NNPA CRITERION 1) FINDING, ALL AGREE THAT WHEN INFORMATION IS AVAILABLE WHICH CALLS INTO QUESTION THE ADEQUACY OF IAEA SAFEGUARDS IN A PARTICULAR COUNTRY OR FACILITY, THIS IS RELEVANT AND SHOULD BE TAKEN INTO ACCOUNT BY THE COMMISSION IN CONSIDERING AN EXPORT APPLICATION.

IN THIS CONNECTION, IT SHOULD BE NOTED THAT WHEN A QUESTION OF SAFEGUARDS ADEQUACY ARISES, THE COMMISSION UTILIZES INTELLIGENCE AND OTHER INFORMATION TO ASSIST IT IN CONSIDERING THE OVERALL MERITS OF AN EXPORT LICENSE APPLICATION. THIS INFORMATION TOGETHER WITH THE GENERAL IAEA SAFEGUARDS INFORMATION AVAILABLE TO THE U.S. GOVERNMENT WOULD PROVIDE A BASIS ON WHICH TO CONSIDER SAFEGUARDS ADEQUACY IN CONNECTION WITH EXPORT LICENSE ACTIONS IF CURRENT COMMISSION EXPORT LICENSING PRACTICES ARE CODIFIED BY STATUTE. ESSENTIALLY, THE COMMISSION WOULD IN VIRTUALLY ALL CASES FIND THAT SAFEGUARDS ARE ADEQUATE, PROVIDED THERE WAS NO SIGNIFICANT DEROGATORY INFORMATION AFFECTING SAFEGUARDS ADEQUACY AT RECIPIENT FACILITIES AND COUNTRIES. THE IMPACT OF APPLYING OTHER CRITERIA IS DISCUSSED UNDER QUESTION (D).

QUESTION 8. (B) DOES THE COMMISSION, IN YOUR VIEW, CURRENTLY RECEIVE SUFFICIENT SAFEGUARDS INFORMATION TO MAKE SUCH A DETERMINATION?

ANSWER.

AS WE HAVE STATED ON A NUMBER OF OCCASIONS, THE NRC RECEIVES LITTLE SPECIFIC INFORMATION ABOUT THE APPLICATION OF IAEA SAFEGUARDS IN PARTICULAR COUNTRIES OR SPECIFIC FACILITIES. WE DO, HOWEVER, RECEIVE SUBSTANTIAL AMOUNTS OF INFORMATION OF A MORE GENERAL NATURE, INCLUDING SOME INFORMATION ON STATE SYSTEMS OF ACCOUNTING AND CONTROL (SSAC) AND ON THE APPLICATION OF IAEA SAFEGUARDS AT SOME TYPES OF FACILITIES. UNDER CURRENT ARRANGEMENTS INVOLVING THE IAEA, THERE ARE CONSTRAINTS IN OBTAINING MORE DETAILED INFORMATION ABOUT SAFEGUARDS IN OTHER COUNTRIES. FOR INDIVIDUAL EXPORTS, THE EXECUTIVE BRANCH USUALLY REFERENCES THE GENERAL CONCLUSION OF THE IAEA SAFEGUARDS IMPLEMENTATION REPORT (SIR).

THE DETAIL OF SAFEGUARDS INFORMATION REQUIRED DEPENDS ON THE CRITERIA USED FOR THE ADEQUACY DETERMINATION. AT THE PRESENT TIME, THE COMMISSION GENERALLY HAS SUFFICIENT INFORMATION AVAILABLE TO DETERMINE WHETHER A RECIPIENT COUNTRY HAS AN AGREEMENT WITH THE IAEA TO APPLY SAFEGUARDS AND WHETHER AN OPERATING FACILITY IS COVERED BY AN IAEA SUBSIDIARY ARRANGEMENT (FACILITY ATTACHMENT). THIS INFORMATION IS NOT USUALLY DETAILED ENOUGH FOR THE U.S. TO CONFIRM ABSOLUTELY THAT THE IAEA IS ACHIEVING ITS SAFEGUARDS OBJECTIVES IN A SPECIFIC COUNTRY OR AT A

SPECIFIC FACILITY. HOWEVER, AS INDICATED EARLIER, UNDER CURRENT COMMISSION EXPORT LICENSE REVIEW PRACTICES THE INFORMATION AVAILABLE WOULD PROVIDE A BASIS UPON WHICH TO MAKE A DETERMINATION THAT THERE IS NO SIGNIFICANT DEROGATORY INFORMATION AFFECTING SAFEGUARDS ADEQUACY IN TERMS OF NORMAL IAEA SAFEGUARDS PRACTICES.

QUESTION 8. (C) SHOULD ADEQUACY OF SAFEGUARDS BECOME SUCH A PRIMARY DETERMINANT OF THE DESIRABILITY OF NUCLEAR EXPORTS, OR ARE THERE OTHER FACTORS, SUCH AS THE NON-PROLIFERATION CREDENTIALS OF THE RECIPIENT COUNTRY, WHICH SHOULD BE CONSIDERED?

ANSWER.

THE COMMISSION BELIEVES THAT THE ADEQUACY OF IAEA SAFEGUARDS SHOULD CONTINUE TO BE AN IMPORTANT, BUT NOT THE EXCLUSIVE, CONSIDERATION IN DETERMINING WHETHER AN EXPORT LICENSE SHOULD BE GRANTED. IN ADDITION TO THE EXPORT CRITERIA PRESCRIBED IN SECTION 127 AND 128 OF THE ATOMIC ENERGY ACT, AS AMENDED, THERE IS A NEED TO CONSIDER OTHER FACTORS, SUCH AS NONPROLIFERATION CREDENTIALS, THE STATE OF DEVELOPMENT OF NUCLEAR FUEL CYCLES WITHIN RECIPIENT COUNTRIES, AND THE LEVELS OF SUPPORT RECIPIENT COUNTRIES ARE PROVIDING TO THE IAEA TO FACILITATE THE IMPLEMENTATION OF SAFEGUARDS IN THEIR COUNTRIES. IT IS THE EXISTENCE OF THESE OTHER RELEVANT FACTORS WHICH, IN THE COMMISSION'S VIEW, MAKES IT UNNECESSARY TO RELY EXCLUSIVELY ON

SAFEGUARDS ADEQUACY CONSIDERATIONS IN MAKING EXPORT LICENSING DETERMINATIONS. WITHOUT THE ABILITY TO WEIGH INFORMATION ON THESE OTHER RELEVANT FACTORS, THE U.S. PROBABLY WOULD BE FORCED TO INSIST UPON THE PROVISION OF THE KIND OF DETAILED SAFEGUARDS INFORMATION NOT CURRENTLY AVAILABLE AND VERY UNLIKELY TO BE OBTAINABLE IN THE FUTURE, BEFORE ISSUING NUCLEAR EXPORT LICENSES.

COMMISSIONER GILINSKY ADDS:

IN MAKING ITS EXPORT DECISIONS, THE COMMISSION IS BOUND BY THE CRITERIA SPECIFIED BY THE ATOMIC ENERGY ACT. SAFEGUARDS MUST NOT ONLY APPLY BUT MUST BE EFFECTIVE. IN OTHER WORDS, WE MUST BE ABLE TO COUNT ON TIMELY WARNING OF A DIVERSION -- IN TIME TO DO SOMETHING ABOUT IT.

THE OTHER FACTORS ENUMERATED BY THE COMMISSION -- SUCH AS NON-PROLIFERATION "CREDENTIALS" AND THE STATE OF THE FUEL CYCLE IN A COUNTRY -- MAY BE HELPFUL IN DECIDING CLOSE CASES BUT THEY ARE MUCH TOO CHANGEABLE TO SERVE AS GUIDEPOSTS IN DECIDING WHETHER TO AUTHORIZE NUCLEAR EXPORTS. IT IS WORTH REMEMBERING THAT IRAN WAS CONSIDERED TO BE A RELIABLE NUCLEAR TRADING PARTNER ONLY A FEW YEARS AGO.

QUESTION 8. (D) WOULD A REQUIREMENT THAT SAFEGUARDS BE "ADEQUATE" RESULT IN A TERMINATION OF ALL U.S. NUCLEAR EXPORTS, AS THE STATE DEPARTMENT HAS ARGUED?

ANSWER.

THE ABILITY OF THE COMMISSION TO MAKE DETERMINATIONS OF SAFEGUARDS ADEQUACY IS DIRECTLY RELATED TO THE CRITERIA UTILIZED AND THE AVAILABILITY OF RELEVANT INFORMATION ON THE APPLICATION OF IAEA SAFEGUARDS. IF NRC WERE REQUIRED TO MAKE A POSITIVE FINDING THAT THE IAEA'S TECHNICAL OBJECTIVES WERE MET, CONSIDERING ALL ESSENTIAL DETAILS OF THE APPLICATION OF IAEA

SAFEGUARDS WITH RESPECT TO EACH PROPOSED EXPORT BEFORE FINDING THAT SAFEGUARDS ARE ADEQUATE, IT IS LIKELY THAT MOST EXPORT LICENSES WOULD BE DELAYED INDEFINITELY OR DENIED. THIS IS BECAUSE, UNDER THE TERMS OF THE ARRANGEMENTS AGREED TO FOR THE APPLICATION OF SAFEGUARDS BY THE IAEA, THE U.S. HAS NO AUTHORITY TO OBTAIN DETAILED INFORMATION ON HOW THE IAEA APPLIES SAFEGUARDS IN SPECIFIC CASES. OBTAINING MORE DETAILED INFORMATION WOULD BE DIFFICULT, IF NOT IMPOSSIBLE, AND WOULD REQUIRE FUNDAMENTAL CHANGES TO THE U.S.' CURRENT OPERATING PROCEDURES. FURTHERMORE, TO DO SO COULD BE VIEWED AS "INSPECTING" THE IAEA AND WOULD BE OPPOSED BY COUNTRIES WHICH NOW PROVIDE INFORMATION ON SAFEGUARDS APPLICATION IN CONFIDENCE TO THE IAEA.

IF, ON THE OTHER HAND, THE COMMISSION WERE REQUIRED TO DETERMINE THAT NORMAL IAEA SAFEGUARDS PRACTICES ARE BEING IMPLEMENTED, UTILIZING THAT INFORMATION WHICH IS CURRENTLY AVAILABLE TO THE UNITED STATES, AND THAT THERE IS NO SIGNIFICANT DEROGATORY INFORMATION PRECLUDING A FINDING THAT SAFEGUARDS ARE APPLIED, NRC'S EXPORT LICENSING ACTIVITIES WOULD PROBABLY CONTINUE UNCHANGED. ESSENTIALLY, IN THIS CASE THE COMMISSION WOULD IN ALL BUT VERY FEW CASES FIND THAT SAFEGUARDS ARE ADEQUATE, PROVIDED THERE WAS NO SIGNIFICANT DEROGATORY INFORMATION AFFECTING SAFEGUARDS ADEQUACY AT RECIPIENT FACILITIES AND COUNTRIES.

APPENDIX 26

RESPONSES BY REPRESENTATIVE OTTINGER TO ADDITIONAL QUESTIONS FOR THE RECORD BY REPRESENTATIVE BONKER

(1) How do you respond to the Administration's contention that limited, non-sensitive nuclear cooperation with non-NPT countries like Argentina and South Africa allows the U.S. to maintain a position of influence with respect to their troublesome nuclear programs?

What will be the effect of terminating all nuclear cooperation with these countries under the provisions of H.R. 3058?

Response: There is little evidence of any U.S. influence on the nuclear programs of such countries much less as a result of this limited nuclear cooperation. On the contrary, continued prospects for nuclear cooperation substantially eliminates any incentive for these countries to move toward acceptance of full-scope safeguards or to become a full-fledged NPT party.

By enacting H.R. 3058, the United States would have a single, uniform standard for nuclear cooperation with all countries. The vast majority of countries now accept international safeguards. Countries which do not accept comprehensive safeguards constitute a highly visible

exception to the world standard. Over time, this fact could provide a strong incentive for these countries to join the majority regarding standards for world nuclear cooperation.

(2) In your opinion, how effective will the stricter export criteria in the pending legislation be in slowing down the nuclear programs of potential proliferators like Argentina and South Africa?

Will the imposition of the new criteria substantially inhibit the ability of these countries to produce weapons-grade nuclear material?

Response: The overall effect of the legislation on potential proliferators is difficult to assess. However, the point of those restrictions is to preclude assistance to countries not accepting fuel scope safeguards. The proposed legislation is not intended to stop nuclear programs. Many additional steps beyond this legislation would be needed to stop weapons development efforts that may be taking place.

(3) Your bill adds new restrictions on the exercise of U.S. prior consent rights over the reprocessing of U.S.-origin spent fuel. What do you believe the practical effect of these provisions will be, especially since the U.S. share of the world enrichment services market has declined to roughly one-third from a near monopoly in the early 1970's?

Won't most U.S. customers, in order to avoid the more stringent controls, simply turn to other suppliers of enriched uranium such as the European consortia URENCO and EURODIF?

Is the incentive program embodied in H.R. 3058, whereby those countries which agree to forego reprocessing are granted concessionary pricing for U.S. enrichment services, sufficient to maintain or improve the U.S. position in the international nuclear market?

Response: By providing enrichment services at or below actual costs, the enrichment price could be set below the world or spot market price. Under those circumstances, the U.S. position would be more competitive and our market share would be expected to increase accordingly.

Present U.S. customers could turn to other suppliers if they were willing to pay higher enrichment prices. However, in so far as the number of countries seeking reprocessing services has declined dramatically and this trend is expected to continue, it does not seem likely these countries would pay a large economic penalty to have an option (reprocessing) which they do not intend to use.

(4) What is your view of the recently-approved retransfer of 148

tons of heavy water to Argentina?

Do you believe, as some have charged, that this retransfer violated either the spirit or the letter of the 1978 Nuclear Non-Proliferation Act?

Response: The proposed retransfer of heavy water to Argentina is a prime example of how the Reagan Administration presents a duplicative, highly discriminating appearance to the other countries by seeking exceptions from and loopholes in U.S. non-proliferation law.

The proposal is clearly a violation of the spirit of the Nuclear Non-Proliferation Act, because a direct transfer of heavy water would not have been permitted. The NNPA is meant to apply certain conditions on nuclear exports to countries. The same conditions should apply to any indirect or third country transfers as apply to direct exports. The pending legislation would close this unfortunate and unintended loophole.

(5) The Administration has identified the emergence of new nuclear suppliers from the ranks of countries which have not signed the NPT as a major problem for U.S. non-proliferation policy. What incentives might the U.S. take to ensure that these new suppliers don't undercut the existing, if insufficient, international consensus to restrain exports to

countries with poor non-proliferation credentials?

Response: To the extent a world market for nuclear technology will exist in the future, one incentive might be to reach some form of a market sharing arrangement, perhaps entailing joint marketing ventures between existing and emerging nuclear suppliers. Greater access to non-nuclear technology markets would provide an additional dimension for market sharing to those nations.

(6) On page 3 of your prepared testimony, you recommend as an amendment to the pending legislation a determination that safeguards are adequate before an export license is granted. The State Department opposes this proposal, asserting that this new export criterion would result in a nuclear export moratorium.

Do you agree with the State Department's appraisal, and, if so, is this your intention?

Response: Criterion One of Section 127 of the Nuclear Non-Proliferation Act requires the international nuclear safeguards will be applied. Presumably this means that "adequate" nuclear safeguards will be applied since it is unlikely that the intent of Congress in 1978 was for "inadequate" or "ineffective" safeguards to be applied. Section 127 could be amended to make this explicit. I do

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not see the difficulty that would result. Agencies such as the Nuclear Regulatory Commission could develop criteria and standards by which their safeguards judgments could be guided. If a moratorium in exports did develop it would occur because such judgements of adequacy could not then be made.

APPENDIX 27

RESPONSES BY DEPARTMENT OF STATE TO ADDITIONAL QUESTIONS

Q. The President's March 31, 1981 arms control speech called on all nuclear exporting countries to adopt comprehensive safeguards as a condition for significant new nuclear supply commitments.

-- Apart from a series of wide-ranging discussions with key nuclear supplier governments, what tangible progress has been made to date on this major policy initiative?

-- Is the "comprehensive safeguards initiative" being discussed in the context of U.S. discussions with EURATOM and Japan on new or amended nuclear agreements for cooperation?

-- What major obstacles exist to reaching a consensus on the President's initiative?

A. In addition to calling in his March 31 speech for agreement among the nuclear exporting countries to require comprehensive safeguards as a condition for significant new nuclear supply commitments, the President during 1983 also wrote to his counterparts in exporter countries on this subject. We regard the response as encouraging, and we are at this moment consulting with key exporter nations on next steps. We use the occasion of our negotiations on new or amended agreements for peaceful nuclear cooperation to raise comprehensive safeguards as well as other non-proliferation issues. The principle obstacles to reaching a consensus on our comprehensive safeguards initiative include a concern among some suppliers that adoption of such a policy might appear discriminatory and coercive to some developing countries For some suppliers adoption of comprehensive safeguards as a condition of significant new supply would also require them to modify their traditional export policies, a step they would want to consider carefully before taking. Finally, some suppliers have argued that adoption of our proposal could inhibit supplier ability to deal flexibly with situations where a given export, even if made in the absence of comprehensive safeguards, might best serve non-proliferation objectives.

Q: What specific steps has the Administration taken to encourage the major non-NPT countries (Argentina, Brazil, Israel, South Africa, India, Pakistan, and Spain) to become signatories to the Non-Proliferation Treaty, or at least, where appropriate, to accept safeguards on all their nuclear facilities?

-- What considerations have led Spain to remain outside the NPT until now?

A: The United States Government has a longstanding policy of encouraging universal adherence to the Nuclear Non-Proliferation Treaty (NPT). In accord with this policy, the U.S. has consistently urged all states which have not yet adhered to the NPT to do so. In his statement of July 1, 1983, commemorating the fifteenth anniversary of the NPT, President Reagan called on "all countries which have not yet done so to join the growing consensus against the spread of nuclear explosives by adhering to the NPT." The subject of NPT adherence is consistently raised with non-parties in a variety of ways, including both formal and informal diplomatic exchanges. U.S. approaches are tailored to be relevant to each individual non-NPT party. In a few cases in which a non-party has emphatically made clear its oposition to NPT adherence, the U.S. may emphasize other approaches, such as full entry into force of the Treaty of Tlatelolco, or at a minimum, acceptance of IAEA safeguards on all the country's nuclear facilities. US efforts to encourage additional adherence to the NPT are intensifying in conjunction with preparations for the 1985 NPT Review Conference, which are now getting underway.

Over time Spain has raised a variety of concerns regarding adherence to the NPT. Among these concerns is a desire to avoid taking such a major decision prior to the completion of an ongoing review of Spanish security requirements and prior to the resolution of Spain's membership in NATO. We are hopeful that the current Spanish leadership, whose party platform favored NPT adherence, will take a fresh look at the issue once these other questions are resolved. We have consistently urged Spanish NPT adherence and will continue to do so in the future.

Q. In terms of procedure and effectiveness, how would you compare the Coordinating Committee (COCOM) system for multilateral export controls to the 21-member NPT Exporters Committee (also known as the Zangger Committee, for its Swiss chairman) and to the informal London Suppliers Group?

A. There are several fundamental differences between the nuclear non-proliferation export controls implemented through the NPT Exporters' (Zangger) Committee and the Nuclear Suppliers Group (NSG) and the East/West technology controls implemented through the Coordinating Committee for Multilateral Export Controls (COCOM). A comparative judgment of the effectiveness of these two multilateral export control regimes can only proceed from a basic understanding of these differences in aims and mechanisms.

First, COCOM controls are more broadly focused than are nuclear supplier controls. Because COCOM is based on informal understandings, the Committee has not issued a formal public statement of its aims. However, a reasonable statement of the basic policy rationale underlying COCOM controls is set forth in the Export Administration Act (EAA)--the domestic U.S. statute which, in part, implements this multilateral regime. The EAA puts forward a policy of using export controls ". . . to restrict the export of goods and technology which would make a significant contribution to the military potential of any other country or combination of countries which would prove detrimental to the national security . . ." The method adopted by COCOM for achieving this policy aim is essentially an export embargo of certain specified commodities to potential adversary nations of

greatest concern; namely the Soviet Union, its Warsaw Pact allies and a number of other Communist countries. Since military potential may arise from general industrial capabilities, COCOM controls are not confined to munitions or military items, but extend to many so-called "dual-use" commodities. These are items (like jet engines, air traffic control equipment and computers) which may have nominal civilian uses, but which also have clear military applications. In any case, COCOM controls are not aimed at preventing proliferation.

In contrast to this broad aim, Zangger Committee and NSG controls are focused on only one military technology of fundamental importance; namely, nuclear explosives. However, they apply to many more countries. The "dual-use" problem is also somewhat different in the nuclear field. Here, the focus is almost solely on transfers which could be benign (if used as part of a safeguarded peaceful nuclear fuel cycle), or dangerous (if they assisted in the acquisition of unsafeguarded weapons-usable material). Because of this inherent dual-use dimension, nuclear supplier controls lack the strict "denial" or "embargo" character of strategic military controls. In fact, a complex web of peaceful use assurances (such as the NPT and Tlatelolco treaties) and international safeguards have been developed to permit certain nuclear exports, while assuring that they will be devoted only to civil purposes, such as medical isotope production or electrical generation.

As codified in IAEA Information Circular (INFCIRC)/254, the NSG participants have identified the following triple set of needs:

-- to contribute to the development of nuclear power in order to meet world energy requirements;

-- to avoid contributing in any way, through this development, to the dangers of a proliferation of nuclear weapons or other nuclear explosive devices; and

-- to remove safeguards and non-proliferation assurances from the field of commercial competition.

This difference in policy objectives is reflected in differences in implementation of COCOM and nuclear supplier controls.

The implementation of controls under COCOM involves a more highly-structured process than Nuclear Suppliers Group controls. Representatives of the 15 nations which participate in COCOM* meet each week in Paris to consider specific "cases" arising under three COCOM embargo lists: munitions; atomic energy; and dual-use (industrial/military). These "cases" are requests for exceptions to the general restraint on trade in these items to proscribed destinations and require consensus of the group. Specific time limits have been adopted which member governments must meet regarding the processing of COCOM cases. Notwithstanding the structured nature of the COCOM process, COCOM decisions are not legally binding on member nations. In extremely unusual and sensitive cases, a member government may

* US, UK, France, Italy, the Netherlands, Belgium, Luxembourg, Norway, Denmark, Canada, W. Germany, Portugal, Japan, Greece, and Turkey.

decide to go forward with an export in the absence of unanimous agreement. This has been, however, a rare occurrence (about 5 times in 30 years).

The NSG and Zangger Committee Guidelines similarly are not contained in formal international agreements. However, the NPT Exporters Committee (Zangger Committee) arrangements are based upon treaty obligations contained in Article III(2) of the Non-Proliferation Treaty. Hence, the Zangger Committee's coordinated export guidelines and technology lists constitute an agreed interpretation by parties to the Treaty of their obligations under the Treaty. The NSG Guidelines have been adopted by each of the member states as national policy.

Both nuclear supplier arrangements involve virtually identical technology lists called "trigger lists." This is because export of any listed item should "trigger" the application of IAEA safeguards on that item and the activity in which it is used. Neither the NSG nor Zangger Committee meet regularly to consider individual export cases; nor are there agreed deadlines or timetables for action on proposed exports. Rather, the participating governments maintain contact and consult through regular diplomatic channels on any matters connected with implementation of the guidelines. Specific sensitive cases are often the subject of consultation between governments to ensure that they are consistent with guidelines and general non-proliferation policy. The nuclear supplier arrangements, therefore, are a largely self-enforcing mechanism.

Disputes about application of the guidelines or trigger lists are dealt with through normal diplomatic representations, which can have a multilateral character if several suppliers coordinate their activities. These activities are supplemented by consultations on broader export control issues. For example, during the annual meeting of the Zangger Committee reports are received from each member government on its export activities during the preceding year. Also, multilateral meetings are periodically conducted to address specific nuclear export control initiatives, such as the recently completed effort to clarify and upgrade the trigger list for gas centrifuge uranium enrichment. Revision of either the supplier guidelines or trigger list require a consensus of all suppliers.

There is no precise way to measure the effectiveness of any export control regime, especially complex, multilateral arrangements involving many supplier and recipient nations. However, there is reason to believe that both COCOM and nuclear supplier controls have been reasonably successful in pursuing their different, though complementary goals.

Since the mid-1970s, when NSG and Zangger Guidelines were widely adopted, no non-nuclear-weapon state has detonated a nuclear explosive device. Further, that period has not seen the widespread development by non-weapons states of unsafeguarded sensitive nuclear facilities (reprocessing, enrichment and heavy water) which are capable of producing sizeable quantities of

nuclear materials outside the scope of IAEA's accounting and surveillance system. Of course, it would be wrong to suggest that credit for the relatively restrained pace of proliferation-sensitive activities lies fully or predominantly with nuclear supplier export controls. However, it would be equally wrong to suggest that these controls have had no impact on preventing proliferation risk nations from moving closer to an explosives capability.

In addition, it is important that these export restraints cannot be fairly criticized as having unduly impeded the development of civil nuclear technology. This is likely to be a significant factor in assuring the long-term viability of the nuclear export control regime. It must be recognized that nuclear supplier controls represent a difficult balance between the legitimate scientific, technical, industrial and economic needs of both suppliers and recipients, and the need of the world community for reasonable assurance that nuclear development does not pose unacceptable risks to international security. The unique system of internationalized inspections which help to verify the peaceful use commitments of nuclear recipients would not have gained broad acceptability without the confidence that nuclear development for peaceful purposes could proceed within the scope of those safeguards. Conversely, without the system of nuclear safeguards, suppliers would be reluctant to extend major nuclear cooperation, because of reasonable concerns that transferred technology might be misused

for explosives development. Continuing efforts must be made to preserve this balance. As has been detailed in responses to other questions, the United States has been and will continue to be an active leader in those efforts.

Because of its broader objectives, a precise assessment of overall COCOM effectiveness is even more difficult. On a case-by-case basis it is clear that COCOM controls have been successful in denying to our adversaries a wide range of specific exports which could significantly contribute to their military potential. If those transfers had not been restrained by COCOM procedures the world would be less secure for the United States and its allies. Our adversaries clearly possess formidable scientific, technical and industrial capabilities which cannot forever be nullified by restraints on technology exports from the West. However, by increasing the difficulty, expense and delay associated with developing military capabilities--especially those of a very advanced nature--COCOM controls contribute meaningfully to our national security objectives. COCOM moreover has an active subcommittee on export controls, and the COCOM nations are making substantial efforts to coordinate their embargo enforcement activities and to devote extra resources to enforcement. This has led to increased success in foiling attempted illegal shipments of COCOM-controlled items.

Q: On page 2 of your statement, you mention the Administration's having taken "a lead role in multilateral efforts to improve international guidelines for controlling sensitive nuclear exports." Where do these efforts currently stand?

A: See response to previous question for detailed statement of US activities to improve international guidelines for control of sensitive nuclear exports.

Q. Chairman Palladino of the Nuclear Regulatory Commission noted in a hearing before the subcommittees last week that the retransfer request regarding heavy water to Argentina was not subjected to the full interagency review process. Will you please explain how the review process usually works, and what steps were not followed in this instance?

A. The interagency procedures established pursuant to the Nuclear Non-Proliferation Act of 1978 were published in the Federal Register of June 9, 1978. They may be found at 43 Federal Register 25325-30. These procedures were established pursuant to certain sections in law requiring the establishment of such procedures (see section 1 of part A of the procedures for a listing of the relevant sections). Neither these sections nor section 109(b) of the Atomic Energy Act requires the establishment of procedures dealing with retransfers of components, items or substances licensed under section 109(b). Therefore, the interagency procedures established in 1978 did not deal with these retransfers.

Since 1980, the Executive branch has been working on proposed revisions to the procedures to establish both procedural and substantive standards for retransfer approvals relating to components, items or substances licensed for export under section 109(b) of the Atomic Energy Act. In September 1983, Ambassador Kennedy circulated a final version of the proposed revision of the

Executive Branch procedures to all concerned agencies, and as of the end of 1983, the Departments of State, Energy, Defense and Commerce and the Arms Control and Disarmament Agency had agreed to the revision, but the Nuclear Regulatory Commission had not. However, the Commission provided comments in late December 1983, and we are hopeful that Executive Branch agencies and the Commission will reach final agreement on the revised procedures soon.

In the absence of formal agreement on the revised Executive Branch procedures, the Executive Branch has handled the few retransfer requests relating to section 109(b) items that have arisen in a manner similar to the way it handles retransfer request approvals for items subject to section 131(a)(B) of the Atomic Energy Act. These latter items (source and special nuclear material, production and utilization facilities) are subject to different export licensing criteria (specified in sections 127 and 128 of the Atomic Energy Act) than those applicable to components, items and substances licensed under section 109(b). In addition to the requirements of section 131, section 127(4) of the Atomic Energy Act specifies that, for retransfers of source material, special nuclear material, production or utilization facilities, and any sensitive nuclear technology, the criteria in section 127 must be found to be meet in the retransferee nation or group of nations before the United States may approve. By analogy, the Executive Branch has considered whether the criteria set forth in section 109(b) of the Atomic Energy Act will be met in a retransferee nation before it approves the retransfer of an item that has been or would be subject to the export licensing under that section.

The NRC publishes in the Federal Register notice of receipt of export license applications for source material, special nuclear material, production facilities and utilization facilities. Under section 131 of the Atomic Energy Act, the Executive Branch publishes notice in the Federal Register of proposed retransfer approvals for these items. The NRC does not, however, publish in the Federal Register notice of receipt of export license applications for the export of components, items and substances licensed under section 109(b). The Executive Branch, therefore, acting in parallel, does not consider it necessary to publish notice of proposed approval of retransfer of these latter items.

Except as specified above, as an interim measure, procedures similar to those set forth in part E of the Executive Branch procedures, cited above, are applied to component retransfers. In essence, the Department of Energy has been the lead agency in clearing retransfer approval requests relating to section 109(b) items, and consults all the same agencies as would be consulted in a request for retransfer approval for an item subject to sections 127 and 131(a)(B).

In this specific case of the retransfer request involving heavy water to Argentina, not only were the procedures described above for section 109(b) items followed, but the Department of Energy decided to publish notice of the approval in the Federal Register.

Q: What is the logic of requiring direct exports of heavy water, but not retransfers, to be licensed by the NRC?

A: In the case of exports, there is a domestic license applicant whose rights are affected by export licensing decisions, and in this context it is possible to argue that, notwithstanding the foreign policy implications of export licensing, a grant of licensing responsibility to a domestic regulatory organization is appropriate. In the case of retransfer approvals, not only is the foreign policy and international relations context larger, but the dealings are primarily between foreign governments and the United States Executive Branch, and it would not be appropriate for a domestic United States regulatory agency to have the lead in these dealings, as opposed to the Executive Branch of the government. The Executive Branch, subject to the direction of the President, is charged with the conduct of US foreign relations. Thus, when the Nuclear Regulatory Commission was established in 1974, and obtained the nuclear export licensing function, the Executive Branch retained the functions relating to approvals for retransfers.

This situation was confirmed in 1978 by the Nuclear Non-Proliferation Act. That Act provided that the Nuclear Regulatory Commission license the export of source material, special nuclear material, production facilities and utilization facilites under specified criteria (section 127-128) and the export of components, items and substances under different specified procedures (section 126). On the other hand, the Act provided that the Department of Energy, with the concurrence of the Department of State, and after consulting other specified agencies, including the Nuclear Regulatory Commission, continue to exercise responsibility

for approvals of retransfers of source material, special nuclear material, production and utilization facilities (section 131 of the Atomic Energy Act).

Consistent with this statutory division of functions, the revised Executive Branch Procedures will make clear that the same interagency division of responsibility relating to retransfers also applies to retransfers of components, items and substances originally licensed for export from the United States under section 109(b) of the Atomic Energy Act.

Q. How does the administration explain approval of such a large retransfer of heavy water to Argentina, while postponing a decision on a number of smaller NRC license applications for heavy water?

A. The decision to approve the retransfer of 143 tonnes of heavy water to Argentina was made only after long and very careful consideration of the non-proliferation factors involved. Approval of the retransfer was granted on the basis of written Argentine Government assurances to the U.S. Government confirming that the heavy water would be subject to the terms and conditions of: 1) the U.S.-Argentina Agreement for Civil Nuclear Cooperation; 2) the Safeguards Agreement between the International Atomic Energy Agency (IAEA), the U.S. and Argentina; and 3) exchanges of notes in 1978 which confirm that there will be no nuclear explosive use for any its exported to Argentina from the U.S. under the U.S.-Argentina Agreement for Cooperation. Argentina also confirmed that the heavy water would be used in the Atucha I, Atucha II and Embalse reactors, all of which are under IAEA safeguards.

Under the terms of the US-Argentine Agreement for Cooperation and the US-Argentine-IAEA safeguards agreement, any facility in which the safeguarded U.S.-origin heavy water is stored or utilized would require IAEA safeguards, as would any nuclear material produced through use of this heavy water.

It is important to note that this transaction involved a retransfer (or re-export) of U.S.-origin heavy water that was physically situated in the Federal Republic of Germany and owned by German entities. The retransfer was processed under procedures similar to those used for subsequent arrangements in accordance with the interagency Procedures Pursuant to the Nuclear Non-Proliferation Act of June 1978 which require only consultation with the NRC.

The pending export cases for small amounts of heavy water involve direct exports from the United States. The Atomic Energy Act contains specific requirements and criteria for direct exports of heavy water--but does not specify requirements pertaining to retransfers of this material. Proposed Executive Branch procedures now under review contain procedures for retransfer of heavy water which would be substantially similar to those used in cases of direct exports.

Q. 1--In your testimony before the Senate, you indicated that several countries were contacted through diplomatic channels to gauge their degree of interest in the United States entering into international cooperation arrangements with them in the area of spent fuel storage and disposal.

Can you tell us what countries have been contacted, and what the response has been to such US initiatives?

A. 1--As required by Section 223 of the Nuclear Waste Policy Act of 1982, all non-nuclear weapons states with which the U.S. has diplomatic relations were informed, through diplomatic channels, that the U.S. is prepared to cooperate with and provide technical assistance in the fields of spent fuel storage and disposal. To date the Governments of Brazil, Egypt, the Netherlands, and the Republic of Korea have formally indicated their interest and this information has been transmitted to the Department of Energy and the Nuclear Regulatory Commission. Follow-on discussions have commenced with the Republic of Korea and will be held with the other countries shortly. There are indications that Argentina, Canada and the Philippines may be interested at a future date and this interest will be pursued. As part of the process of disseminating information and developing items for cooperation, the interested States were invited to send a representative(s) to the Department of Energy's annual Civilian Radioactive Waste Information meeting held December 12-15, 1983 in Washington, D.C. This meeting included a half day session on international issues and section 223. Representatives were present from Austria, Canada, Czechoslovakia, France, Italy, Japan, Korea, Mexico, Sweden, Switzerland, West Germany, and Yugoslavia.

Q. 2--Is it the Administration's view that encouraging practical solutions for spent fuel storage and disposal are important instruments for U.S. policy in limiting reprocessing and plutonium use?

A. 2--In his statement on nuclear nonproliferation on July 16, 1981, the President said that "the Administration will also not inhibit or set back civil reprocessing and breeder reactor development abroad in nations with advanced nuclear power programs where it does not constitute a proliferation risk." In cases where reprocessing and plutonium use is deemed inappropriate, encouraging practical solutions for spent fuel storage and disposal are important instruments of U.S. policy.

Q. 3--Can you give us some indication of the progress made on the issue of spent fuel storage and disposal at the IAEA international conference on radioactive waste management held in Seattle last May?

A. 3--The presentations and discussions at the IAEA Seattle conference demonstrated that waste management is now recognized world-wide as an integral part of nuclear power programs and that it requires proper attention from the start of such programs. Radioactive waste management has advanced from the technology development stage to the stage of full scale industrial projects or, in the case of high level waste, to feasible concepts. In general the conference confirmed that nuclear power can be harnessed for mankind without creating an unmanageable waste disposal problem. There was a consensus that no technological breakthroughs are required for the safe management of radioactive waste. The conference confirmed that placement in water basins continues to be the principal method used for interim storage of spent fuel. It further developed at the conference that the more highly developed countries are evaluating dry storage, either in vaults or in casks. West Germany reported it is about to begin operations of a 1500 MT cask storage facility at Gorleben and plans another at Ahaus. Sweden reported its dry storage facility in granite will be operational in 1985. Canada summarized its R & D studies on dry casks and vault storage concepts which began in 1974. Canada indicated that irradiated CANDU fuel bundles demonstrated a very high resistance to deterioration in both wet and dry conditions.

Q. In your statement, you mention the perception of Brazil that the withdrawal of U.S. nuclear cooperation necessitated by the NNPA was "a tremendous affront." You indicated before the Senate that you hope a "situation could be developed which would permit the reinstatement of the fuel supply contract to Brazil".

Could you go into some more detail for the subcommittees regarding your discussions with the Brazilians? For example, what is Brazil's position regarding the NPT and the Latin American Nuclear Weapons Free Zone.

A. U.S.-Brazilian differences over nuclear issues were a source of severe irritation in our bilateral relations with Brazil. From the Brazilian point of view, the U.S. withdrawal from nuclear cooperation as a result of the passage of the NNPA was a unilateral abrogation or alteration of international agreements and contracts including the U.S.-Brazil Agreement for Cooperation for the Civil Uses of Nuclear Energy and the DOE enrichment services contract with the Brazilian utility FURNAS. In addition, Brazilian opinion was deeply offended by U.S. efforts to press the FRG to withhold sensitive nuclear technology from Brazil, despite the Brazilian government's agreement to place under IAEA safeguards all technology, equipment and nuclear material received from the FRG.

In order to lessen bilateral tensions over nuclear issues as well as to open lines of communication with the Government of Brazil on non-proliferation topics of concern to us, including our effort to convince Brazil to require IAEA safeguards as a condition of Brazilian nuclear exports, President Reagan and his Brazilian counterpart agreed to establish a working group on nuclear issues. The working group met in Brasilia in May and in Washington in August of last year. The meetings of the working group succeeded in

reestablishing a positive and constructive dialogue on nuclear issues with Brazil and established new areas of cooperation in the nuclear field, consistent with our respective national laws and policies.

Among the topics discussed during the working group sessions was the Brazilian attitude towards the Treaty of Tlatelolco, which establishes a nuclear weapons free zone in Latin America. Brazil has signed and ratified the Treaty. However, the Treaty is so-written that it will not come into force until all eligible states have ratified the Treaty and all nuclear weapons states adhere to the additional protocols. Brazil refuses to waive this requirement so that the Treaty would enter into force for Brazil as it has for twenty-two other states. The Government of Brazil has stated it will not waive the Treaty into force until Argentina and Cuba ratify it. (Argentina has signed but not ratified the Treaty and Cuba refuses to adhere.) The Brazilian delegation to the working group told the US delegation that the Treaty of Tlatelolco was central to Brazil's nuclear policy and that the Government of Brazil is bound by international law, domestic law, and national policy to do nothing to undercut the Treaty.

Brazil rejects the NPT as a discriminatory agreement which establishes differing obligations and status for nuclear weapons and non-nuclear weapons states. The Government of Brazil is well aware of US support for the NPT.

Q. Under what conditions would the Administration consider reinstating the fuel supply contract?

A. The U.S. and Brazilian delegation to the nuclear affairs working group agreed in principle to suspend the DOE-FURNAS enrichment contract until such time as our policy differences on nuclear matters are resolved. In effect, this means we will not be in a position to reinstate the fuel supply contract until such time as Brazil meets the requirements of the Atomic Energy Act as amended for significant nuclear exports. The AEA requires inter alia comprehensive IAEA safeguards as a condition of export for enriched uranium.

On page 7 of your prepared statement, you mention the Executive Branch analysis, prior to export, of technical and economic justifications for the use of highly-enriched uranium (HEU).

Q: What exactly does this analysis entail?

A: The technical analysis which is prepared for export cases involving highly enriched uranium, includes information on the present reactor operations, e.g., data on burn-up rate, duty factor, technical parameters of the fuel in use, and annual fuel requirements. Analyses are presented of the status of testing and development for low enriched fuel for use at the reactor which is the prospective recipient of highly enriched uranium, as well as the plans and schedule of the reactor operators for conversion of low enriched fuels. Information on HEU inventory for the reactor is also included. Finally, the analysis includes a description of technical changes that would have to be made in the reactor in order to convert to low enriched fuel, a discussion of the costs of conversion, and an assessment of the economics of conversion.

Q. What budget resources are currently available, and what is the level projected for the RERTR program, which seeks to develop non-weapons-usable low-enriched fuel for research reactors?

A. The current (FY 84) budget level (obligation authority) for the Reduced Enrichment for Research and Test Reactor program is approximately $4.8 million. The proposed figure for FY 85 is approximately $5.3 million.

Q: How many countries are currently participating in the RERTR program?

A: Over twenty countries are participating in the RERTR program. The key participants include Japan, Canada, United Kingdom, Federal Republic of Germany, and France.

The NRC has been considering revisions to its regulations which would loosen controls on exports which fall under their jurisdiction.

— How do these proposed changes square with the President's comprehensive safeguards initiative? Isn't it unseemly for the U.S. to relax its nuclear export controls at the very time it seeks to encourage other suppliers to tighten theirs?

A. The revisions to the NRC regulations in question have been under review for more than four years and were proposed during the previous Administration. These revisions are intended primarily to facilitate processing of such exports as: 1) de minimis quantities of no proliferation significance such as small amounts of radioactive isotopes or other nuclear materials for industrial and medical use; and 2) supply of nuclear fuel and components to countries which have accepted comprehensive safeguards and cooperate closely with the U.S. in non-proliferation efforts.

The President's comprehensive safeguards initiative is designed to stimulate consideration and discussion among suppliers with respect to enhancement of nuclear export controls. Neither the initiative nor the long-pending proposed revisions to the NRC's regulations are incorporated in current nuclear export controls. We would not anticipate approval of any revision to existing U.S. nuclear export controls which would actually undercut the President's comprehensive safeguards initiative.

APPENDIX 28

RESPONSES BY DEPARTMENT OF STATE TO ADDITIONAL QUESTIONS SUBMITTED BY REPRESENTATIVE LEVINE

Question. What concrete steps has the Administration taken to encourage Argentine acceptance of full-scope safeguards? Of full adherence to the Treaty of Tlatelolco? Of adherence to the NPT?

Answer. [Security deletion.]

Question. Considering the length of time Argentina has spent negotiating on its safeguards agreement with the IAEA, what is your assessment of the seriousness of the negotiations and any probability of a safeguards agreement coming into force? Are the Argentines merely using these negotiations as a stalling technique until they complete an independent, indigenous nuclear program?

Answer. There are twelve agreements in force for the application of IAEA safeguards with respect to individual facilities, equipment, technology, and material in Argentina. Most nuclear activities and material in Argentina are thus under IAEA safeguards. There are technical negotiations on subsidiary arrangements underway between the IAEA and Argentina relating to implementation of several of the existing agreements. Two of these are discussions of the details for application of safeguards to the Arroyoito heavy water plant and the Embalse power reactor. It is not unusual to have ongoing technical negotiations between the IAEA and various states regarding the details of applications of safeguards to individual facilities.

Argentina has signed but not ratified the Treaty of Tlatelolco. The previous government had been engaged in discussions with the IAEA relating to details of a safeguards agreement as required by the Treaty of Tlatelolco for states that ratify the Treaty. Such an agreement would provide for safeguards on all nuclear activities. Obligations concerning the negotiation and entry into force of such an agreement are not applicable until after Argentina ratifies the Treaty and waives the conditions for it entering into force.

The new government in Argentina has made numerous positive statements and has instituted a complete review of Argentina's nuclear program and policies. Changes in key personnel have already been made. It may be several months before the effect of the new government in this field becomes apparent.

Question. What is the operating history and status and the efficiency record of safeguards application in Argentina?

Answer. Since 1964, Argentina has had 12 safeguards agreements with the IAEA enter into force. While not all facilities in Argentina are covered by safeguards under these agreements, a variety of reactors, nuclear material, heavy water, equipment, and facilities are being safeguarded by the IAEA. The IAEA stated in its most recent Annual Report that, as in previous years, it did not detect any anomaly that would indicate the diversion of a significant amount of safeguarded nuclear material or the misuse of facilities or equipment subject to safeguards. We hope that with the new government in office, Argentina will ratify and bring into force the Treaty of Tlatelolco. Adherence to that treaty and negotiation of a single comprehensive safeguards agreement would enable the IAEA to apply safeguards more uniformly and efficiently in Argentina.

Question. What is the probability that the Argentines have diverted any material from any of their reactors?

Answer. The Atucha I and Embalse power reactors in Argentina are covered by IAEA safeguards agreements. In addition, there are four research reactors in Argentina which are under IAEA safeguards. The IAEA reported in its latest Annual Report that it has not detected any anomaly that would indicate a diversion of a significant amount of nuclear material. We have no information which warrants a conclusion inconsistent with the IAEA findings. We continue to take steps to ensure that the IAEA Department of Safeguards has the resources and techniques required to accomplish its objectives.

Question. Please list some specific initiatives you have taken with other countries to encourage full-scope safeguards, safe[illegible] their exports, and adherence to non-proliferation objectives.

Answer. During 1983 we were in close touch at the highest levels of government with all of the major nuclear exporter countries on the question of requiring full-scope ("comprehensive") safeguards as a condition of significant new nuclear supply. We are continuing to pursue these discussions in diplomatic channels. We are also very much aware that a number of developing nations are beginning to embark on nuclear export programs of their own, and we have taken appropriate opportunities to encourage these countries (e.g., Spain, Brazil, China, and Argentina) to adopt export requirements similar to those applied by traditional suppliers. On the question of encouraging broader adherence to non-proliferation objectives in general, we have, for example, been engaged in a dialogue with China in which we have stressed the importance of achieving a shared understanding of fundamental non-proliferation principles as a basis for Sino-American cooperation in the peaceful uses of nuclear energy.

Question. When was the most recent meeting of the London Supplier Group to formulate an agreed position on export policy? If the suppliers have not met as a group, why not? Please list some of the most recent meetings with various suppliers and initiatives we are undertaking to discourage exports which undercut non-proliferation goals and objectives.

Answer. [Security deletion.]

In addition to these multilateral export control meetings, over the past two years the United States has conducted over 35 meetings on a bilateral basis with other suppliers concerning non-proliferation policy, with a major emphasis on export controls. These meetings do not include the many routine individual contacts on specific export cases between U.S. embassy officers and foreign government officials in foreign capital, or between U.S. export control officials and foreign embassy officers in Washington. [Security deletion.]

As we move toward the Third NPT Review Conference in 1985, there is concern that the international non-proliferation regime could be disrupted, if that Conference were to be perceived as a failure. Such a result would be more likely if NPT opponents could persuade a substantial number of recipients that nuclear supplier export control activities embody a policy of technology "denial" which discriminates against developing nations.

The desirability of avoiding undue supplier/recipient antagonism leads to another important point regarding nuclear supplier group meetings. Unless there are specific export control results which cannot be achieved other than through a formal multilateral supplier meeting, there is much to be said in favor of pursuing those ends through normal diplomatic and intelligence channels.

In addition to the trigger list upgrade initiative, the United States has taken other steps to assure that non-proliferation export controls reflect technological developments. One important initiative involves so-called "dual-use" exports. Such transfers involve items or commodities which have routine non-nuclear industrial uses, but which may also have applications in the fields of nuclear weapons design, manufacture or testing. These exports are extremely difficult to control, even in the U.S. system. However, it is fair to say that most other suppliers have substantially less-effective procedures for controlling "dual-use" exports. It is obvious that U.S. restraints on such commerce cannot effectively prevent proliferators from acquiring "dual-use" items unless other suppliers apply similar restraints on their exports.

Therefore, for the past two years, the United States has conducted a series of consultations with other suppliers concerning the "dual-use" problem. In these consultations we have sought to do two things. First, some suppliers need to be made aware of the proliferation risks of "dual-use" exports, something which is not always self-evident to non-nuclear-weapon-states. Second, we believe it is useful to provide detailed information on how the United States "dual-use" export control system works, and what items are controlled. Our consultations have sought to identify a genuine proliferation problem and the procedures used by the US to deal with it. The response to these consultations has been very positive. We will be continuing this initiative in the coming year.

Another important export control initiative begun in 1983 concerns the role of emerging nuclear suppliers. These are nations which have not played an important role—up to now—in transferring nuclear materials, equipment or technology to other countries, but which are developing the capability to do so in the near future.

This is a particularly difficult issue because several of the "emerging supplier" nations are countries which have been the object of nuclear export controls by the traditional suppliers. Some of these nations have actively criticized nuclear export controls as discriminatory measures of technology denial. However, we believe it should be possible to convince these nations that restraining the spread of sensitive

technologies and explosives capabilities is as much in their national security interest as it is in the interest of traditional suppliers—and all nations.

Question. When meeting with heads of state or other foreign leaders, with what frequency and importance does the President and/or the Secretary of State raise the issue of non-proliferation?

Answer. The President has discussed the issue of non-proliferation in numerous public speeches and policy statements, most recently before the UNGA last fall. In addition, the President, the Vice President and the Secretary of State have raised the issue repeatedly with their counterparts or other high-level foreign officials. One of the points that has been stressed in this regard is the fundamental importance of preventing the spread of nuclear explosives and the negative effect that proliferation would have on regional and global stability. In addition to general references to the importance of preventing proliferation, the President, the Secretary, and other appropriate high-level officials raise specific non-proliferation issues in their meetings with foreign officials whenever the occasion warrants, particularly in the case of nuclear supplier countries and countries of proliferation concern. In a number of instances, the President has also written foreign leaders on particular non-proliferation issues and initiatives.

APPENDIX 29

RESPONSES BY DEPARTMENT OF STATE TO ADDITIONAL QUESTIONS SUBMITTED BY REPRESENTATIVE OTTINGER

Question. Please describe in detail the Swiss record on non-proliferation matters.

Answer. The Government of Switzerland is committed to preventing the spread of nuclear weapons, and as a party to the NPT and an active participant in the NPT Exporters' Committee, also known as the Zangger Committee after its Swiss Chairman, Professor Claude Zangger, has good non-proliferation credentials. Switzerland also adheres to the Nuclear Suppliers Group guidelines. The Government of Switzerland has participated in efforts to update the so-called trigger lists associated with the NPT and the NSG guidelines. These documents contain the internationally agreed lists of equipment, material and technology for which safeguards should be required as a condition of export.

Like most other nuclear suppliers, Switzerland does not currently require comprehensive IAEA safeguards as a condition of significant new nuclear exports, a policy the US is seeking to persuade other suppliers to adopt. In addition, Swiss export control regulations do not now clearly cover many of the dual use nuclear related items which the US controls, but this situation will change with the anticipated enactment of new Swiss nuclear export control legislation. In the meantime, Swiss officials have been prepared to act vigorously to prevent exports of concern when they are furnished specific information concerning a possible evasion of agreed supplier controls.

Question. What is the status of discussions to renegotiate the U.S.-Swiss Agreement for Cooperation?

Answer. In 1978, the United States provided the Swiss Government a proposed revised agreement for cooperation. Discussions were held on May 14-15, 1979, concerning the U.S. proposals. In 1980, the U.S. provided a revised proposal to the Government of Switzerland. On November 9-10, 1983, the United States and Switzerland held discussions on this matter in Bern, Switzerland. The United States has agreed to prepare further documents to provide to the Government of Switzerland taking into account those discussions. Thereafter, the Swiss Government will study these texts, and further discussions on this subject matter may then be scheduled to be held in Washington.

Question. Is the United States Government directly or indirectly linking progress toward a new agreement to these MB-10 approvals?

Should progress on this renegotiation be obtained before approval of these retransfers are made? If not, why not?

Answer. This Administration believes that reestablishing the position of the United States as a reliable and predictable nuclear trade partner is essential if we are to further our non-proliferation objectives. Accordingly, this Administration's policy is not to inhibit or set back nuclear activities in nations with advanced nuclear programs where they do not constitute a proliferation risk. The Administration makes every effort, therefore, to ensure expeditious action on export and approval requests where the necessary statutory requirements are met. We have not linked the MB-10 approvals to progress toward a new agreement. We believe such linkage would undermine rather than promote our overall non-proliferation efforts. However, Swiss agreement to reopen discussions on the agreement for cooperation was promoted in important ways by the recent record of the US Government in processing MB-10 applications and in our willingness to give favorable consideration to the pending retransfer requests consistent with our legal and policy requirements.

Question. Please describe past export activities of Swiss firms of technology and equipment for use in Pakistan's enrichment and reprocessing facilities?

Answer. [Security deletion.]

Question. Please describe fully the transportation and physical security arrangements for the proposed plutonium transfer from France to the FRG and then to Switzerland.

Answer. The US has received from the French, FRG, and Swiss governments formal assurances that physical security meeting the guidelines of IAEA document INFCIRC/225/Rev. 1, will govern the transportation of the plutonium to be transferred.

The US regularly conducts exchanges of information concerning physical security in these countries, including consultations between government officials and site visits. Most recently, in March of 1983 an interagency team including State, DOE, and NRC, held discussions with the Swiss government on physical security issues. Exchanges of this nature and other information indicate that the assurances which we have been given are being met.

Question. Do the facilities in the FRG and Switzerland which will handle either bulk plutonium or fabricated plutonium have completed IAEA Facility Attachments (i.e., full and complete state-of-the-art-safeguards)? If not, discuss the safeguards that will be applied.

Please describe the status of the safeguards agreement for the ALKEM fabrication plant in the FRG.

Shouldn't a formal facility attachment of the ALKEM facility be negotiated before this approval is made? If not, why not?

Answer. The subject plutonium will be used in the Proteus research reactor at Wuerenlingen and the KKB-I and KKB-II power reactors at Beznau in Switzerland. All these reactors have facility attachments in force and the IAEA is applying safeguards pursuant to these facility attachments. The mixed-oxide fuel will be fabricated in the ALKEM plant in the Federal Republic of Germany. This facility does not have a formal facility attachment in force.

[Security deletion.]

Inasmuch as the IAEA is applying safeguards at ALKEM and the IAEA has stated that it is able to draw independent conclusions concerning the status of safeguarded nuclear material, formal conclusion of a facility attachment, while desirable, is not essential to the effectiveness of safeguards at ALKEM.

Question. What is the status of the pending retransfer of 135 kg plutonium from France to Japan?

Answer. A final decision has not yet been made. Responsible Japanese organizations have been studying various transport plans and the physical protection measures appropriate for the planned shipment from France to Japan of plutonium derived from US origin fuel. During this process we have been consulted regarding technical issues. We are looking forward to receiving from Japan specific information on the transportation and physical protection plans to be implemented. This will be taken into account in the review of the request for retransfer.

Question. Please provide the written recommendations of the Department of State and the Arms Control and Disarmament Agency to the Secretary of Energy regarding the approval of these Swiss and Japanese retransfer requests under section 131 of the Atomic Energy Act.

Answer. This matter is being handled separately in discussions with the Committee staff.