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INTERNATIONAL AGREEMENTS FOR COOPERATION

GOVERNMENT

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HEARING
BEFORE THE
SUBCOMMITTEE ON
AGREEMENTS FOR COOPERATION
OF THE
JOINT COMMITTEE ON ATOMIC ENERGY
CONGRESS OF THE UNITED STATES
EIGHTY-SEVENTH CONGRESS
SECOND SESSION
ON THE
PROPOSED AGREEMENT WITH BELGIUM FOR MUTUAL
DEFENSE PURPOSES

AND
PROPOSED AGREEMENTS WITH EURATOM AND VARIOUS
COUNTRIES FOR PEACEFUL USES OF ATOMIC ENERGY

JUNE 25, 1962

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HEARING
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AGREEMENTS FOR COOPERATION
OF THE

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Note: The morning session, on the proposed agreement for cooperation with the Government of Belgium for mutual defense purposes, was held in executive session. Classified matter has been deleted and the remainder published for the information of the Congress and the public. The afternoon session was held in public and has been reported in full.

INTERNATIONAL AGREEMENTS FOR COOPERATION

MONDAY, JUNE 25, 1962

CONGRESS OF THE UNITED STATES,
SUBCOMMITTEE ON AGREEMENTS FOR COOPERATION,
JOINT COMMITTEE ON ATOMIC ENERGY,
Washington, D.C.

The Subcommittee on Agreements for Cooperation met, pursuant to call, at 10:15 a.m., in the committee room, the Capital, Hon. Melvin Price (acting chairman) presiding.

Present were: Representatives Price (presiding), Morris; Senators Gore, Dworshak, and Aiken.

Also present: James T. Ramey, executive director; John T. Conway, assistant director; David R. Toll, staff counsel, and George F. Murphy, Jr., professional staff member.

Representatives of the Department of State: U. Alexis Johnson, Deputy Under Secretary of State for Political Affairs, J. Robert Schaetzel, Deputy Assistant Secretary for Atlantic Affairs, Dana Orwick, Director for Nuclear Space Matters, Politico-Military Affairs, and Alan G. James, Officer in Charge of Special Political Military Problems in the Office of Atlantic Political Military Affairs.

Representatives of the Department of Defense: Gerald W. Johnson, Assistant Secretary of Defense for Atomic Energy, Col. Philip L. Hooper, Military Assistant to Dr. Johnson, Robert Kubal, Office of International Security Affairs of OSD, and Col. Grover K. Coe, Office of Congressional Liaison.

Representatives of the Atomic Energy Commission: Hon. John S. Graham, Commissioner, Dwight A. Ink, Assistant General Manager, A. A. Wells, Director, Division of International Affairs, and Larry O'Donnell, Office of International Affairs, Neil Naden, General Counsel, and Franklin N. Parks, Office of the General Counsel, Gen. A. W. Betts, Director, Division of Military Applications, Adm. John A. Waters, Jr., Director, Division of Security, and William T. Riley, Assistant Director for Physical Security, and Richard X. Donovan, Congressional Liaison.

Representative PRICE. The subcommittee will come to order.

The Subcommittee on Agreements for Cooperation meets this morning in executive session to receive testimony from representatives of the State Department, the Department of Defense, and the Atomic Energy Commission with regard to a proposed agreement for cooperation for mutual defense purposes between the Government of the

United States and the Government of Belgium on the use of atomic energy.

On May 29, 1962, President Kennedy transmitted to the Congress the proposed agreement which had been signed in Brussels on May 17, 1962. In accordance with section 123 d. of the Atomic Energy Act, the proposed agreement must lie before the Joint Committee for 60 days while Congress is in session before it can take effect and will not become effective if during that period the Congress passes a concurrent resolution stating in substance that it does not favor the agreement.

The proposed agreement before us is similar to agreements for cooperation which previously have been entered into with other NATO Allies, such as the Governments of Turkey, Italy, Greece, the Netherlands, and the Federal Republic of Germany.

We are holding this hearing in executive session in order that we may explore fully all matters and details without regard to classification of the information to be discussed. I expect that our witnesses this morning will be completely frank in their testimony and responses to any questions since this is an executive session and the transcript will be afforded the protection accorded to classified documents.

The subcommittee will meet in open session this afternoon to receive testimony concerning amendments to a number of agreements for cooperation in the civil uses of atomic energy, at which time we will also receive testimony as to this proposed military agreement with Belgium and discuss it to the extent possible without going into classified information.

It has been the committee's practice to hold hearings on proposed military agreements, to publish the unclassified portions of the hearings, and to issue reports with its recommendation to the Congress in order that the Congress may have a basis for making its determination under section 123d. In the event the committee decides to publish any portion of this executive session, it will do so only after the transcript has been submitted to each of the agencies testifying in order that they may review and designate any testimony which they believe might be detrimental to the security or best interests of the United States if made public.

If there is no objection, I will place in the record a copy of the proposed agreement for cooperation along with the President's transmittal letter to the Congress and other accompanying documents.¹

It is my understanding the representatives from the Department of State will be our first witnesses and will be followed by the representatives from the Department of Defense and the Atomic Energy Commission in that order. Accordingly, we will begin with Mr. U. Alexis Johnson, Deputy Under Secretary of State for Political Affairs.

Mr. Johnson.

STATEMENT OF U. ALEXIS JOHNSON, DEPUTY UNDER SECRETARY OF STATE FOR POLITICAL AFFAIRS

Mr. JOHNSON. Mr. Chairman, I have a prepared statement which I will read with your permission.

I appear before your committee this morning to support on behalf of the State Department the Agreement for Cooperation on the Uses of Atomic Energy for Mutual Defense Purposes which was recently

¹ The documents referred to appear as app. 1, p. 57.

concluded between the United States and Belgium. Your committee has been informed periodically about the course of the negotiation of this agreement with the Belgian Government.

This agreement is designed to serve the same objectives of improving defense capabilities of the NATO Alliance for which the United States has entered into atomic cooperation agreements with other NATO countries. In character, it parallels agreements the United States has concluded with Germany, Greece, the Netherlands, Turkey, Italy, and France, and which have previously been discussed before this committee.

The proposed agreement with Belgium is essentially a permissive one. The specific exchanges of information and transfers of non-nuclear parts of weapons systems conducted under it will depend on a number of NATO and U.S. planning decisions. One decision concerns the role, conventional or nuclear, assigned to Belgian units by General Norstad in the light of his overall defense plans. Another decision relates to the specific military equipment actually introduced into the Belgian armed forces. The Belgians now have F-84 strike aircraft. It is expected that information will therefore be passed to the Belgians to enable Belgian pilots to complete their training in nuclear operations in the F-84. At such time as the F-104G aircraft are introduced into the Belgian Air Force, other information may have to be passed if the Belgian F-104G are assigned a nuclear role. Belgian forces also have Nikes, Honest Johns and 8-inch howitzers. To what extent information on these systems will be passed to Belgium under this agreement will be determined by operational requirements.

The agreement with Belgium is not inconsistent with the policy of the administration on NATO strategy and the emphasis on a conventional buildup. We have assured our allies that we will maintain an adequate nuclear capability in NATO Europe. [Classified matter deleted.]

Under this agreement with Belgium the United States would be able, in accordance with section 144b of the Atomic Energy Act, to exchange information with Belgium which is jointly determined to be necessary to the development of defense plans, the training of personnel in the employment of and defense against atomic weapons and in other military applications of atomic energy, the evaluation of the capabilities of potential enemies in the employment of atomic weapons and the development of delivery systems compatible with the atomic weapons they carry. The United States will also be able, in accordance with section 91c of the act, to transfer to Belgium non-nuclear parts of atomic weapons systems (as opposed to parts of atomic weapons), as jointly determined to be necessary for the purpose of improving the state of training and operational readiness of Belgian armed forces.

This agreement carries forward a program which involves cooperation on uses of atomic energy for mutual defense purposes between the United States and a number of NATO countries. As this committee is also aware, the United States, in pressing in NATO for a greater conventional force buildup, has assured our allies that we will maintain an adequate nuclear capability in NATO Europe.

The agreement will enable the United States to cooperate with Belgium and NATO to implement agreed NATO plans for employment

of Belgian forces with a nuclear capability. This agreement will permit us to transmit to Belgium information required to make them fully capable of carrying out assigned operations.

I would like to emphasize that this agreement does not provide for the exchange of information for the design, development, or fabrication of atomic weapons. The agreement expressly states that there will be no transfer of atomic weapons, parts of atomic weapons, or special nuclear materials.

Cooperative arrangements, such as the proposed agreement, insure that if an attack on NATO should occur, Belgian forces could under the direction of SACEUR effectively operate in conjunction with other NATO forces in the use of nuclear weapons, if required. Cooperation under this agreement will enhance the ability of these forces to maintain a high state of readiness.

Belgium has consistently demonstrated firm support for NATO. The Belgian Government, and particularly Foreign Minister Spaak, are fully aware of the necessity for maintaining a strong defensive posture in NATO. For our part, implementation of this agreement will continue to build cohesion of the alliance.

In the foregoing sense, the proposed agreement with Belgium will, in the view of the Department of State, promote and will not constitute an unreasonable risk to the common defense and security of the United States.

I therefore commend it to your favorable consideration.

Representative PRICE. Thank you, Mr. Johnson.

The President in his message on May 29, submitting the proposed agreement with Belgium to the Congress stated that it is essentially the same as the agreements we have concluded since 1959 with a number of other NATO countries.

Will you explain to what extent it varies or differs from our other military agreements with our NATO allies?

Mr. JOHNSON. It is essentially the same. It varies only in slight language details. I could submit to the committee a statement that would give the exact differences, but offhand, Mr. Chairman, I cannot point out the precise differences.

Representative PRICE. Is it basically the same?

Mr. JOHNSON. Basically there is no difference.

Representative PRICE. The President's message said essentially the same, so this does leave room for someone to think there are variations in it. If there are variations in it, we would like to have them for the record.

Mr. JOHNSON. Basically it is the same. There are only small language differences. Substantatively there are no differences.

Representative PRICE. In 1959 we were able to conclude agreements with Turkey, Greece, the Netherlands, and Germany. Last year we entered into similar agreements with Italy and France. Why did we not enter into this type of agreement with Belgium in 1959 or 1961?

Mr. JOHNSON. Mr. Chairman, there was no special reason except a series of cumulative delays.

Representative PRICE. Was there anything of major significance at any time that would cause you to think this might not be a worthwhile agreement?

Mr. JOHNSON. No, sir.

Representative PRICE. Who in the U.S. Government will be responsible for insuring that the Belgian Government complies with the provisions of this agreement, particularly the adequacy of security of information or materials transmitted in accordance with this agreement? Will you explain the method by which this will be accomplished?

Mr. JOHNSON. There is the usual certification of the Joint State-Defense Committee on Security.

Then there will be the standard procedures. Standard procedures will be applied with respect to the agreement that are applied in the cases of all other agreements.

Representative PRICE. Will this include AEC responsibilities also?

Mr. JOHNSON. Oh, yes.

Representative PRICE. The New York Times of June 20 had an article to the effect that the State Department has disclosed its Planning Policy Council, headed by Mr. Walt W. Rostow, has completed a comprehensive survey of U.S. foreign policy. Mr. Lincoln White, Press Officer of the State Department, is reported as stating the study takes into consideration all aspects of the U.S. interests abroad such as diplomatic and military factors.

Does the Rostow report include a study of these types of agreements for cooperation and U.S. arrangements with the NATO allies in the atomic weapons field?

Mr. JOHNSON. It does not.

Representative PRICE. Is the study favorable toward agreements for cooperation for mutual defense purposes or does it make recommendations for different arrangements?

Mr. JOHNSON. Mr. Chairman, the so-called Rostow study is not a personal study. Each administration back to 1958 has at various times done up what they call basic national security policy papers for the National Security Council for consideration by the President. The present study for the present administration has been under Mr. Rostow's direction, but this is an interdepartmental study involving all departments and it is still in a study stage. There is no paper that has yet been approved by the Secretary of State nor by the National Security Council nor by the President. And it is essentially a compilation of existing policy.

Representative PRICE. Do I understand you to say it is not a one-man affair?

Mr. JOHNSON. It is not a one-man affair by any means. It is a compilation of many different policies and different areas of the Department. It is an attempt essentially to bring together in a coherent form what is, in fact, being done within the Government.

Representative PRICE. Does it include nuclear weapons?

Mr. JOHNSON. Mr. Chairman, I haven't read it. There have been a number of drafts. It has been several months since I have read a draft of it. And yes, I recall it deals with this question of nuclear policy, but what the present stage of it is, I just can't say.

However, as far as any changes in policy will be concerned, this committee has been kept informed on our thinking with regard to nuclear policy, and if any changes are made or contemplated, they certainly will be discussed with this committee.

Representative PRICE. In that connection, then, would it be possible for this committee to receive any part or section of that report that deals with nuclear policies?

Mr. JOHNSON. That would have to be addressed to the President, I believe, Mr. Chairman. The paper is being prepared as a draft National Security Council paper and, as such, would be subject to the President's wishes.

Representative PRICE. You say that any policy contemplated by the Department of State in connection with nuclear matters has already been made known to this committee?

Mr. JOHNSON. Yes; that is correct.

Representative PRICE. That is the reason I asked whether or not it would be possible to get those sections of the report that dealt strictly with nuclear problems.

Mr. JOHNSON. As it is a draft National Security Council document, I would think this question would have to be addressed to the President, and I don't think I would be qualified to answer.

Representative PRICE. In other words, this compilation is being prepared for the convenience of the National Security Council.

Mr. JOHNSON. That is correct, sir.

Representative PRICE. And not by any one man?

Mr. JOHNSON. Not by one man; no, sir.

Representative PRICE. In the ad hoc report on NATO, February 1959, the committee recommended consideration to installing certain types of permissive links on atomic weapons assigned to certain forces. [Classified matter deleted.]

By letter dated May 29, a number of members of this committee wrote to the President recommending that permissive links not be ordered for or placed on all weapons systems until we first obtained the necessary operating experience. What is the position of the State Department in this regard?

Mr. JOHNSON. Mr. Chairman, as a general principle the State Department is in favor of anything that will increase the command control capability over these weapons. As far as the permissive link is concerned we very fully and strongly supported the development of the permissive link. However, we must leave it to the Department of Defense and to the Atomic Energy Commission to determine to what degree it is practicable to install the permissive link and to what degree the permissive link may or may not degrade the effectiveness of the weapon.

In general, we would hope that permissive links could be installed on the maximum number of weapons.

[Classified matter deleted.]

Representative PRICE. Do you have anything else you would like to make known to the committee?

Mr. JOHNSON. I have nothing. Thank you very much, Mr. Chairman.

Representative PRICE. Next on the agenda will be the Department of Defense.

Dr. Johnson, are you going to make the statement on behalf of the Department of Defense?

**STATEMENT OF GERALD W. JOHNSON, ASSISTANT SECRETARY OF
DEFENSE FOR ATOMIC ENERGY**

Dr. JOHNSON. Yes, Mr. Chairman, I have a prepared statement which, with your permission, I will read.

Representative PRICE. Mr. Johnson, you may be excused if you desire to leave.

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

Dr. JOHNSON. I am appearing before you on behalf of the Department of Defense in support of the agreement between the United States and the Government of Belgium in accordance with the provisions of sections 91 c. and 144 b. of the Atomic Energy Act of 1954. This agreement is essentially the same as the agreements for cooperation our Government entered into with the following member states of NATO: the Netherlands, Turkey, Greece, the Federal Republic of Germany, Italy, and France.

The implementation of the NATO stockpile concept other than the actual stockpiling of the weapons requires three steps to insure the attainment of a satisfactory atomic capability for the allied forces.

The first is the exchange of atomic information with NATO planners. This has in general been met by the atomic agreement with NATO authorized by the Atomic Energy Act of 1954. This agreement was ratified by each of the member countries and came into force in March 1956. It has permitted the NATO planners to develop theater defense plans and the essential force goals to support these plans.

The second is the identification of the force goals with the individual member countries. This identification is contained in the current Military Committee Paper 26/4, commonly referred to as MC 26/4 (formerly MC 70), which gives the overall force goals for the countries. The Department of Defense have studies underway of the strike aircraft program in light of such existing commitment to NATO and the MRBM program.

Now, the third step is the equipping and training of the non-U.S. NATO country with the specific atomic delivery units. In the case of Belgium, the proposed atomic delivery units included in the Belgium goals were discussed.

[Classified matter deleted.]

The training requirement of this third step leads us to the agreement we are discussing with the committee today. The Belgian forces can conduct basic training on those systems now in their hands. However, the final training to insure that these forces are capable of performing a satisfactory atomic mission with the aircraft delivery system cannot be completed until we are authorized to transmit information on loading, appropriate testing, including the postload test, in-flight monitoring and possibly information on ground handling. I say with aircraft delivery systems because in the case of the present Honest John and Nike-Hercules, the Army has developed unclassified simulators which can be used to adequately train the Belgian crews. No restricted data is necessary in training these crews. This crew training includes all the necessary significant operations to permit the delivery unit to accomplish a successful launch. However, access to formerly

restricted data is required in target analysis and firing data computations necessary to arrive at the correct settings for prearranged war plan targets. Therefore, for non-U.S. Honest John units, this agreement for cooperation is essential for the Belgian Honest John units and the forces supported by the Honest John units to obtain a complete operational readiness status. Furthermore, the Belgian military staff, other than those assigned to major NATO commands need the kind of information permitted in the agreement in the development of their defense plans, training of personnel and the evaluation of the atomic capability of a potential enemy. In this connection, the training of NATO earmarked forces continues to be a national responsibility.

In addition, the basic weapon system as furnished by the military assistance program may not in all cases include certain nonnuclear parts of the system which are those necessary accessories for handling the weapons, for attaching weapons to delivery vehicles, and for monitoring and check out of a weapon to insure that it is safe and in proper operating condition prior to the mission. Nonnuclear parts of a system may include the control mechanisms, which are parts of aircraft or missile launching devices associated with the bomb or warhead, lugs, pylons and other devices for attaching the bomb to its carrier and the like. Of course, these do not include any part of the bomb or warhead itself, but may include training shapes or simulators to assist in the attainment of an effective delivery capability. Since these items are components of the delivery system rather than of the warhead or bomb, it is desirable that arrangements be made for their transfer by sale under the military assistance program, thus making it unnecessary for Belgium to establish special production facilities for the limited quantities involved. No such transfers are envisaged at this time but may be appropriate in future systems.

Incidentally there was a mistake in the prepared testimony which read "transfer by sale or grant". "Grant" should not be in there.

I would like to go over in some detail the agreement itself. The agreement will permit under the authority of sections 91c and 144b of the Atomic Energy Act of 1954, as amended, the transfer of classified information and certain equipment necessary for the purpose of improving the state of training and operational readiness of the armed forces in Belgium in the context which I have described above.

Article II of the agreement provides for the transfer of classified information, including restricted data and formerly restricted data, necessary to the development of defense plans, the training of personnel in the employment of and the defense against atomic weapons and other military applications of atomic energy; the evaluation of the capability of potential enemies in the employment of atomic weapons and other military applications of atomic energy; and the development of delivery systems capable of carrying atomic weapons.

Article III of the agreement provides that the United States will transfer nonnuclear parts of atomic weapons systems involving restricted data (other than nonnuclear parts of atomic weapons) for the purpose of improving the state of training and operational readiness of the armed forces of Belgium. However, in view of section 91c of the Atomic Energy Act, the applicability of which is reflected in article IV of the agreement, no transfer can be made if it would con-

tribute significantly to the recipient nation's atomic weapon design, development or fabrication capability.

The agreement would remain in force until terminated by agreement of both parties, thus assuring continued protection for the information and equipment transferred in accordance with the provision of the agreement. However, cooperation for the transfer of information and equipment under articles II and III of the agreement may be discontinued by either party in the event of the termination of the North Atlantic Treaty.

In accordance with the provisions of section 91 c. and 144 b. of the Atomic Energy Act of 1954, the agreement specifically provides in article I that all cooperation under the agreement will be undertaken only when the communicating or transferring party determines that such cooperation will promote and will not constitute an unreasonable risk to its defense and security. Article I of the agreement also provides, in accordance with the act, that all cooperation under the agreement will be undertaken only while the United States and Belgium are participating in an international arrangement for their mutual defense and security and making substantial and material contributions thereto. Cooperation under articles II and III of the agreement would be undertaken only when these conditions prevail.

Article IV of the agreement stipulates that the cooperation under the agreement will be carried out by each of the parties in accordance with applicable laws. Article IV also makes clear that there will be no transfer under the agreement of atomic weapons, nonnuclear parts of atomic weapons or special nuclear material.

In addition to the foregoing provisions on the terms, conditions, duration, nature and scope of cooperation, the agreement provides that the parties will maintain agreed security safeguards and standards. The agreement also contains particular commitments that the recipient of any equipment or information that is obtained pursuant to the agreement will not transfer it to unauthorized persons and will not transfer it beyond the jurisdiction of the recipient party, except in limited circumstances specifically provided in the agreement.

Additionally, the agreement provides authority for the transfer of nonnuclear parts of atomic weapons systems involving restricted data.

The transfer of such nonnuclear parts of systems will, we believe, permit the attainment of an effective operational readiness capability for Belgian delivery vehicles closely aligned, if not identical, to the state of operational readiness of our delivery systems. As mentioned earlier, no such transfers are envisaged at this time for the systems now in the Belgian program. The specific types, quantities and conditions of transfer, i.e., by sale, lease or loan, of such nonnuclear parts as may subsequently be determined will be submitted to the President for approval.

Belgium is now participating with the United States in international arrangements pursuant to which Belgium is making substantial and material contributions to the mutual defense and security. It is the view of the Department of Defense that this agreement is entirely in accord with the provisions of the Atomic Energy Act of 1954, as amended. It is the considered opinion of the Department of Defense that the performance of the proposed agreement will promote and will not constitute an unreasonable risk to the common defense and security of the United States.

That completes my prepared statement.

Representative PRICE. What specific information do you anticipate transferring to the Belgian Government under this proposed agreement?

Dr. JOHNSON. I have the list here. It is similar to the types of information that we have transmitted to other countries. Specifically the type of atomic information that we transmit is:

[Classified matter deleted.]

Representative PRICE. What is the status of the F-104 program for the Belgian Government?

Dr. JOHNSON. I will have to defer on this to ISA. Would you introduce yourself?

(Question directed to ISA representative.)

Mr. KUBAL. Mr. Kubal. I am from Mr. Nitze's office.

Belgium will get delivery of F-104's from European production.

[Classified matter deleted.]

Representative PRICE. Do the Belgians construct any of their own aircraft?

Mr. KUBAL. They will fabricate the 104 and they will construct parts of the 104 in Belgium and I believe they have an assembly line in Belgium for the assembly of the F-104. There are Belgian manufacturers participating in the consortium.

Representative PRICE. Dr. Johnson, do you have any further comment on that?

Dr. JOHNSON. No, sir; I don't.

[Classified matter deleted.]

Representative PRICE. In a memorandum, dated March 22, 1962, to the President from Deputy Secretary of Defense Gilpatric and AEC Chairman Seaborg concerning this proposed agreement, it was recommended that the President approve the program for the transfer of nonnuclear parts of weapons systems, but it was further stated:

However, types, quantities and conditions of transfer of such parts are subject to your later approval.

Why were the specific materials to be transferred not identified at the time and on the basis of existing agreements with other NATO countries do you not know the types of equipment which you plan to transfer?

Dr. JOHNSON. I am afraid I just don't know the answer to that question specifically. Do any of you know that?

(Question directed to OSD staff.)

Colonel HOOPER. No, sir. We weren't sure of what the 104 program would be. That was one indefinite point, sir.

Dr. JOHNSON. May we supply that in writing and make it a matter of record?

Representative PRICE. The interest of the committee is that the committee and the Congress may not be fully aware of the implications of the agreement at this time. The Congress can do nothing to prevent transfer at a subsequent date after the 60-day period has run. In other words, we do not have complete information on which to base our judgment.

Dr. JOHNSON. We will supply this information, sir. Perhaps the AEC can add something to this.

Mr. INK. I can't. Can you, General Betts?

General BETTS. We don't know what items will actually be transferred until we get into the details. We do know fundamentally they are not parts of nuclear weapons. These are parts of systems; in other words items that relate more to the weapon itself or the weapons system itself than the ultimate nonnuclear part of a nuclear weapon. Consequently with something like the F-104 where this is a consortium arrangement, until we have gone through the details and until the request is made through Defense channels we don't know what parts are involved.

Representative PRICE. Will the committee be kept informed of any actual transfer?

General BETTS. I think on the record we have kept the committee informed of such things as were transferred under an agreement.

Mr. CONWAY. I think the point here, General Betts, is that in 1959 when we first entered into these agreements it was difficult to know what would be transferred. However, you have had 3 years' experience in which you have cooperated in the F-84 and other systems. We have had the Honest John and we have transferred parts and information. So we do have some knowledge of what is involved. In those systems, at least, I think it would be possible to have something specific as to what is being transferred under this agreement.

I think this would be the purpose of the question.

General BETTS. I think your point is well taken that we could make a partial listing now of the kinds of things that would be transferred.

Representative PRICE. Dr. Johnson, could you describe the mechanics under which transfer of classified information is made? Is this done in the United States or in Belgium?

Dr. JOHNSON. We have a Joint Atomic Information Exchange Group that processes all requests for information. In cases of joint determination they arrange that, but the actual mechanics of transferring and assuring that the information being transferred is in accord with established procedures and findings, this Group passes on each bit of information.

Representative PRICE. At what level do you make the information available?

Dr. JOHNSON. You mean the receiving channel at the other end?

Representative PRICE. Yes.

Dr. JOHNSON. It would go into their security system at the other end to authorized individuals who have been cleared through the security procedures.

Representative PRICE. In your statement you refer to article II of the agreement providing for the transfer of classified information, including restricted data and formerly restricted data. What does formerly restricted data apply to? Why do you use formerly restricted data?

Dr. JOHNSON. Under the law as far as the transmittal of information in these channels we have to treat formerly restricted data the same as restricted data. So it is material that has been reclassified for our own purposes.

Mr. CONWAY. Dr. Johnson, there was, several years ago I believe, some question of transferring classified information or communicating it to host nations through their military attachés here in this country. Then they apparently would have the responsibility of transmitting it

over to their own Government. There were some problems at that time because they didn't have a regular courier system. I know there was discussion of whether we would assume the responsibility of getting it across the Atlantic to these countries. Has that been worked out? Where physically are we transmitting classified information—here or in Europe?

Dr. JOHNSON. You mean transfer—

Mr. CONWAY. Physical communication—

Dr. JOHNSON (continuing). From JAG to the appropriate countries at the other end. Here I am going to ask for help again.

Colonel HOOPER. Mr. Conway, this varies. Immediately after this agreement goes into force the Secretary of Defense in our procedure writes a letter to the Minister of Defense of the recipient nation and advises the Minister of Defense of the recipient nation of our JAIEG; that is, Joint Atomic Information Exchange Group. He suggests they set up a similar arrangement so we can have a channel to pass this formerly restricted data.

Representative PRICE. Have you had any security problems with nations with which we have already entered into agreements for cooperation?

Colonel HOOPER. Not that I know of.

Dr. JOHNSON. I am not aware of any such cases.

Colonel HOOPER. We have had some inadvertent security problems. The committee is aware of some of these security problems at SHAPE and other places.

Representative PRICE. I mean specifically in relation to the implementation of any of these agreements for cooperation?

Colonel HOOPER. No, sir, not that I am aware of.

Dr. JOHNSON. I am not aware of any.

Mr. CONWAY. I have been informed of some of the problems that existed in the training of pilots and other operational personnel. One particular problem was considered serious. That is the Joint Atomic Information Group will authorize transmission of information but only for a certain limited period of time. Personnel who are now training the non-U.S. pilots—the German pilots, for example—will train them for a certain period of time in which they can discuss restricted data. However, when they come back to recheck the pilots on subsequent inspection to see if they are maintaining proper operational readiness they are no longer permitted to discuss restricted data with the same pilots. They felt this was causing them a problem from the safety point of view as well as operational point of view and they were making some recommendations to get around that restriction. Has that been clarified yet? They felt it was quite a serious problem.

Dr. JOHNSON. Not yet, no.

Representative PRICE. If there are no further questions of Dr. Johnson, we will excuse him.

Representative PRICE. Thank you, Dr. Johnson.

The committee will now hear from the Atomic Energy Commission. Commissioner Graham will present the statement for the Commission.

STATEMENT OF JOHN S. GRAHAM, COMMISSIONER, AEC

Commissioner GRAHAM. Thank you, Mr. Chairman.

I have a short statement which I will read with your permission. I am accompanied by Mr. Ink, Mr. Wells, and also General Betts.

I have a statement today in support of the Agreement for Cooperation for Mutual Defense Purposes with Belgium which has recently been submitted to the Congress in accordance with sections 123 c. and 123 d. of the Atomic Energy Act of 1954, as amended.

Representatives of the Departments of State and Defense here today have discussed with the Committee the background, principal provisions and contemplated cooperation envisioned under the mutual defense agreement with Belgium. The agreement is similar in all of its major provisions with the agreements entered into earlier with the Netherlands, Germany, Greece, Turkey, Italy, and France. Like these earlier agreements, it is designed to strengthen NATO by making restricted data available for the training of Belgian forces assigned to or earmarked for NATO in the use of atomic capable weapons systems. The agreement covers the transmission of information relating to defense plans, the training of personnel and the improvement of and defense against atomic weapons and other military applications of atomic energy as authorized under the 1958 amendment to section 144 b. of the Atomic Energy Act. It also covers the transfer of nonnuclear parts for atomic weapons systems necessary for improving the Belgian state of training and operational readiness. It does not cover the dispersal of atomic weapons or the communication of information concerning military reactors.

The Commission's role in the conclusion of the mutual defense agreement with Belgium, as in previous 144 b. agreements, has been limited to assisting the Department of Defense since that Department has the primary responsibility for agreements negotiated pursuant to section 144 b. of the Atomic Energy Act. The Commission does, however, support this agreement and joined the Department of Defense in recommending to the President that its performance would promote and would not constitute an unreasonable risk to the common defense and security. Before joining in this recommendation, the Commission, together with the other agencies involved, satisfied itself that adequate security procedures would be employed to protect information to be transmitted under this agreement.

Members of the Commission staff are present and would, of course, be happy to answer any questions the Committee may have concerning the details of action which the Commission has taken with respect to this agreement.

That, Mr. Chairman, is the end of my prepared statement.

Representative PRICE. Thank you very much, Mr. Graham.

Senator Gore.

Senator GORE. No questions.

Representative PRICE. Mr. Morris.

Representative MORRIS. No questions.

Representative PRICE. Senator Dworshak.

Senator DWORSHAK. I have one question, Mr. Graham. I presume these agreements are reciprocal and I wonder if you could tell us very briefly what contribution is made by Belgium in this case?

Commissioner GRAHAM. Senator, would you let me ask the Department of Defense because they are chief negotiators of the quid pro quo?

Mr. INK. Defense just left.

Senator DWORSHAK. That isn't symbolic?

Mr. INK. No, sir; nothing was intended to reflect that.

Representative PRICE. I excused them because I thought we had questioned them sufficiently.

Mr. INK. Even though they have gone, I think I can say—although State can probably speak to this better than we can—the area in which we do receive considerable assistance is in the mutual defense area. The development and installation of NATO units and the atomic capability involved in the units manned by these nations, including Belgium, is an integral part of our defense of Europe and defense of the free world. This is important to this country.

Perhaps State Department might want to add something.

Mr. SCHAETZEL. I am Robert Schaetzel from the State Department, Mr. Chairman. I confirm what Mr. Ink says; namely, it is a part of the entire NATO system commitment of Belgium forces to NATO. The fact that they are adequately equipped in the general NATO framework contributes to the defense of this country. So it is in that connection.

I think another point was made earlier. This was no grant of material but will actually be a purchase in a way with which we are all familiar.

Senator DWORSHAK. Of course, Mr. Chairman, there has been criticism of NATO over the years to the effect that it had too many of its military plans on blueprints rather than being available actually for a holding action in the case of Communist aggression. More recently people have denied that was a fact. They have indicated greater progress was being made insofar as getting better cooperation from NATO. In fact, Secretary McNamara only a few weeks ago before our Appropriations Subcommittee on the Defense budget indicated he was well pleased with the progress which had been made during the past year.

Still a few years ago critics of NATO, like myself, for its failure to cooperate were told our charges were not justifiable. There must have been some shortcomings though or Secretary McNamara could not have reported satisfactory progress during the past year.

On that basis I wonder if the AEC, Defense, and State Department are taking a firm position in promoting mutual defense contingent not only upon what the United States does but actually on what contributions are being made by NATO countries to the overall objectives.

Mr. INK. With respect to these atomic units, as you know, Senator, the bulk of the forces, the bulk of manpower that are associated with these units are actually those of the host nation. While I recognize your comment speaks to a broader area, in the specific area which we are addressing here they are providing considerable support.

Senator DWORSHAK. You are merely extending to other countries like Belgium the same consideration which has previously been accorded to countries like the United Kingdom, the Netherlands, Germany, Italy, Turkey, Greece, and France. There is no real change in procedure. It is rather that all of the nations in NATO are receiving equitable consideration.

Commissioner GRAHAM. If I may revise and extend your remarks to some extent, the thrust of this is that it provides the same type or equality of treatment to the European nations in the NATO system.

I could volunteer, sir, perhaps a little more information which might be helpful to you. Before you came in there was a colloquy between the chairman, Dr. Johnson of the Defense Department and a representative from Mr. Nitze's office, the International Section, with respect to a so-called consortium of four European countries: Germany, the Netherlands, Belgium, and Italy. They are putting up some money to purchase new F-104G Lockheed aircraft. They did not, as I recall, Mr. Chairman, state the amount of money involved, but there is a so-called matching contribution by those four countries. While I would not obviously be in any position to know the percentage or degree of contribution being made in nuclear or the nonnuclear side, I did read, as you have indicated, that Secretary McNamara reported there was a percentage increase in the buildup.

Representative PRICE. Mr. Graham, would you advise the committee to what extent the Commission reviewed the security standard procedures of Belgium so as to be assured they are adequate and comparable to those of the United States?

Commissioner GRAHAM. We have been an active participant in the security systems and it is on the basis of what Dr. Johnson called a coordinated report that we act, sir.

[Classified matter deleted.]

Representative PRICE. Mr. Graham, will the Commission assure the committee that it will continue to participate with the State Department and Defense Department in future reviews to be certain that proper security is being afforded the material and information made available under and pursuant to this agreement?

Commissioner GRAHAM. I do not know of any plans or of any disposition or any intention on the part of the Commission—and when I say Commission, I mean both the Commissioners and the staff—to back away from or to dismantle this security review in which we participate and if you will let me make a commercial, sir, I think we have made a contribution to it.

Representative PRICE. To be sure my last remark was on the record, I want to repeat that I think every member of this committee will be sorry to see you leave the Commission.

Commissioner GRAHAM. Thank you, Mr. Chairman.

Representative PRICE. Mr. Ramey.

Mr. RAMEY. In that connection, Mr. Graham, you were very interested in this whole NATO study that the committee and the Commission has been concerned with. I wondered whether you had any general remarks on whether you consider there had been any improvement in the past couple of years?

Commissioner GRAHAM. Mr. Ramey, I was very much encouraged by what seemed to me a much better climate and much more personal interest in the whole question of safety and security which have developed between the time of the original ad hoc committee visit to NATO in December of 1960 compared with today.

[Classified matter deleted.]

I readily came to the conclusion that the change had permeated the entire NATO system, if you please. I so stated this in Paris. I have

stated it subsequently to my fellow associates and I am pleased to say it here.

I think this was due, as we were told, because General Norstad took this ad hoc committee report very seriously and issued the directive to go ahead and do something about it. I think it was fortunate that General Norstad arranged for Dr. Agnew, who was a great weapons designer in Los Alamos and who had been on the first trip, to be assigned to his headquarters. Secondly—and I think of very great importance—was the fact that Colonel Goldenberg, who had very good training in weapons safety and who had been assigned to DMA in our shop, on his next tour of duty was assigned there.

To summarize my conclusions, I think there was convergence of three points. First there was the right change at the top [deleted] which originally spent their time getting operational bases set up [deleted] now were paying attention—and very great attention—to safety and security. That, combined with these other two, made a great impact. That is all I have to say on that one, sir.

Representative PRICE. I think the Chair will submit to you the remaining questions the committee would like to have answered and you can submit your answers for the record. I think we should use our remaining time to cover the rest of your statement.

Commissioner GRAHAM. The second part of my statement, sir, is also short. It involves the French research reactor. With your permission, I will read it, sir.

I should like to mention briefly the matter of providing fuel for a small French training reactor pursuant to our Mutual Defense Agreement of 1959 with France. You will recall that this agreement provided for the sale to France of U^{235} for use in the development and operation of a land-based prototype nuclear submarine propulsion plant. The proposed training reactor would require about six kilograms of U^{235} contained in uranium enriched up to 90 percent. The essential considerations in this matter were set forth in a letter from the general manager to Chairman Holifield of June 6, 1962.

(The letter referred to follows:)

U.S. ATOMIC ENERGY COMMISSION,
Washington, D.C., June 6, 1962.

HON. CHET HOLIFIELD,
*Chairman, Joint Committee on Atomic Energy,
Congress of the United States.*

DEAR MR. HOLIFIELD: In recent weeks, representatives of the Commission have advised the committee's staff of a request we have received from the French Government for approximately 6 kilograms of contained U^{235} to be used for fueling a 100-kilowatt Argonaut training reactor to be located at the French naval base at Cherbourg. The Cherbourg reactor will be used primarily for training French naval personnel, some of whom will be employed in the development of the prototype nuclear submarine project, and to a lesser degree for training civilian students from neighboring universities.

As a result of a consideration of the various methods that might be employed to satisfy this request, the Commission has concluded that it would be preferable if the proposed transfer could be arranged under our existing 91c agreement with France, especially since this particular military agreement has incorporated by reference the comprehensive safeguard rights of our Civil Agreement for the purpose of assuring that the material transferred will be used only for its intended purpose. Our views are based on the following:

First, although we recognize that an argument could be developed for accommodating the proposed reactor under our Civil Agreement with France, it is our view that the principal purposes for which the Cherbourg reactor will be used

fall outside the statutory prohibition that material transferred under civil agreements shall not be used "for any military purpose." Accordingly, we believe the fueling of the reactor should take place pursuant to a military agreement.

Second, it is desirable to avoid an amendment to the existing mutual defense agreement at this time. We, therefore, believe that the proposed transfer of fuel should be handled in a way so as to avoid the need for such an amendment. Further, given the incidental contributions the Cherbourg reactor will make to the French civil program, any amendment at this time might be regarded as a willingness on our part to temper our policy of encouraging the West Europeans to receive their special nuclear materials from the United States primarily through Euratom.

Third, since the Cherbourg reactor will be used primarily to train naval officers, a number of whom will participate in the development and operation of the land-based prototype nuclear submarine, we believe that a case can be made that fueling the reactor falls within the spirit of the existing mutual defense agreement. We, of course, recognize that the existing agreement provides that the U²³⁵ transferred thereunder shall be used exclusively in the development and operation of the prototype. We believe, however, it can be reasonably argued that the general training of civilian students and naval officers that may be associated with the use of the reactor is not inconsistent with the underlying objectives of this provision, which was to assure that the material transferred would not be used in the French nuclear weapons program.

Accordingly, in view of the foregoing considerations, the Commission proposes to proceed with the transfer of the necessary U²³⁵ for the Cherbourg reactor as a transaction under the 1959 mutual defense agreement with France in the absence of objection by the committee to our proceeding in this manner. The Department of State concurs with this position. We would, of course, appreciate receiving your comments.

Sincerely yours,

A. H. LUEDECKE, *General Manager.*

Commissioner GRAHAM. Briefly, the French wish to build a small (100 kw.) Argonaut type training reactor at the French naval base at Cherbourg to be used primarily for training French naval personnel, some of whom will undoubtedly be employed subsequently in the French land-based prototype nuclear submarine project. Some civilian students from neighboring universities will also be trained at the facility. There will be no communication of restricted data in connection with this transaction. The reactor is a completely unclassified type and will be designed and built by the French. Similar reactors are in operation in the French civil program and in many other countries, including Argentina, Germany, and the United Kingdom. A reactor of this type has no appreciable capacity for performance of research and development and can make no appreciable contribution to the development of military reactor technology.

The Commission and the Department of State believe that it would be appropriate to provide the requested material and we have examined the alternative methods by which this might be done. Despite the limited and indirect military contribution, it was concluded as set forth in our letter of June 6, that the transfer pursuant to our existing 91c agreement with France would be the most desirable method of handling this request. The Department of State concurs in this judgment. The existing mutual defense agreement contains a provision that material transferred will be used exclusively in the development and operation of the land-based prototype reactor project. Since the essential purpose, however, of this restriction was to preclude the possibility of U²³⁵ being used for the French weapons program and safeguards rights exist under the agreement to assure that the desired materiel for the training reactor would not be diverted to such use,

we have concluded that the transfer could appropriately be authorized under the existing agreement. We will, of course, be pleased to answer any questions you may have on this matter.

Representative PRICE. What were the alternative methods that you considered?

Commissioner GRAHAM. May I ask Mr. Wells to talk to that for you?

Representative PRICE. Yes.

Mr. WELLS. Mr. Chairman, one alternative was the amendment of the existing 144 b. agreement. The language in the agreement, as Mr. Graham has indicated, is that the material will be used exclusively for the development and operation of a land based prototype reactor project. We considered the possibility of amending that agreement.

Another possibility was to ask ourselves whether or not the military contribution was not so insignificant that this could have been done under the existing peaceful agreement. We have transferred material for one such similar reactor under the civil agreement which is used at Saclay. To have done this, we would have to conclude that even though this reactor was used to train military personnel, it was not, in fact, contributing substantially to the weapons program. On balance we preferred—and I believe it is the correct way—to consider that to have done that would have been contrary to the guarantee the material would not be used for military purposes.

Mr. RAMEY. You said "weapons program." Did you mean military?

Mr. WELLS. Military reactor program.

Representative PRICE. Did you consider going through Euratom?

Mr. WELLS. Yes, sir. If we had gone through Euratom, we would have run into the same problem because Euratom provides material exclusively for peaceful purposes.

Representative PRICE. Mr. Graham, on pages 3 and 4 of your statement you deal with the proposed arrangement to provide fuel for an Argonaut training reactor at the French Naval Base at Cherbourg. How many kilograms of material have been allocated under the existing military agreement for cooperation?

Mr. GRAHAM. Mr. Wells has those figures.

Mr. WELLS. As of this time there have been 86 kilograms of material actually transferred to France under the mutual defense agreement that we are referring to.

Representative PRICE. Will this arrangement furnish additional material?

Mr. WELLS. This arrangement will provide that 6 additional kilograms may be furnished but it will have to come out of the total material that is already authorized by the existing agreement.

I think the short answer to your question is it will be in addition to the 86 which I have mentioned.

Representative PRICE. How much is authorized by the agreement?

Mr. WELLS. 420 kilograms for material enriched to 20 percent or 150 kilograms enriched to 90 percent. I am sorry. It is 300 kilograms enriched to 90 percent.

Mr. CONWAY. Isn't it 440?

Mr. WELLS. 440 for enriched to 20 percent; 300 for 90 percent.

As they have chosen to use the higher enriched materials, one can predict, Mr. Chairman, there will be something like a total of 176 kilograms of material enriched to 90 percent if we give this additional 6 kilograms of material. They might, under the agreement, go as high as 300.

Representative PRICE. Does the State Department join in this recommendation?

Commissioner GRAHAM. Yes, sir; I said so in my statement but Mr. Schaezel is here and can speak for them.

Mr. SCHAEZEL. Sir, the State Department certainly supports what Commissioner Graham has said.

Representative PRICE. Mr. Morris?

Representative MORRIS. No questions.

Representative PRICE. Senator Dworshak?

Senator DWORSHAK. No questions.

Representative PRICE. Mr. Ramey?

Mr. RAMEY. Would it be possible the question on this agreement is really as to the legal and practical way of doing this?

Mr. WELLS. Yes, sir.

Mr. RAMEY. There is this military agreement relating to the project for the land-based submarine prototype and this Cherbourg training reactor is another incidental thing to it. Could we have some sort of assurance from AEC that in any subsequent amendment you enter that you would specifically cover this Cherbourg reactor so that you don't have to go for a specific amendment now? This might have been the kind of thing that if you were going to have an amendment you would have included.

Mr. WELLS. I think that would be a very reasonable thing to do, Mr. Ramey. The next time we have occasion to amend the mutual defense agreement it seems to me we ought to cover this.

Representative PRICE. There are no further questions. We thank you very much, Mr. Graham.

We will meet this afternoon at 2:30 p.m. in the open committee hearing room.

(Whereupon at 11:50 a.m., the meeting was adjourned.)

AFTERNOON SESSION

The joint subcommittee met in open session at 2:30 p.m., pursuant to call, in the committee hearing room, Hon. Melvin Price presiding.

Present: Representatives Price, Aspinall, Morris, and Hosmer; and Senator Gore.

Also present: James T. Ramey, executive director, John T. Conway, assistant director, and David R. Toll, staff counsel.

Representative PRICE. The subcommittee will be in order.

The Subcommittee on Agreements for Cooperation of the Joint Committee on Atomic Energy is holding public hearings this afternoon on certain proposed international agreements for cooperation between the Government of the United States and other governments with respect to the uses of atomic energy.

One of these is a proposed agreement with the Government of Belgium for cooperation on the uses of atomic energy for mutual defense purposes. This agreement is similar in scope and purpose

with the agreements previously entered into with the Netherlands, Germany, Greece, Turkey, Italy, and France. It provides for the exchange of classified information and certain nonnuclear equipment.

This morning the subcommittee held a hearing in executive session to receive testimony on the classified details of this proposed agreement.

In addition, the subcommittee will receive testimony on a number of proposed amendments to the agreement for cooperation with Euratom, and with the governments of other countries with respect to the peaceful uses of atomic energy.

Under the provisions of the Atomic Energy Act of 1954, as amended, the Joint Committee has special responsibilities to review proposed international agreements relating to atomic energy, with respect to both the military and peaceful uses. Section 123 of the act requires a three-step procedure: First, a recommendation by the executive agencies to the President; secondly, approval and certain determinations by the President; and third, review by the Joint Committee and the Congress. In the case of proposed agreements for peaceful uses, the proposed agreement must lie before the Joint Committee for 30 days before it can take effect. In the case of proposed agreements for mutual defense purposes, the proposed agreement must lie before the Joint Committee for 60 days. If during such 60-day period the Congress passes a concurrent resolution stating in substance that it does not favor the proposed agreement for cooperation, the law provides that it shall not become effective.

The Joint Committee recognizes the serious responsibilities to the Congress and to the American people which the Atomic Energy Act places upon us. It has been the practice of the subcommittee to place the text of all proposed military agreements, and the more significant or unusual civil agreements or amendments, in the Congressional Record together with a few words of explanation by the chairman of the subcommittee. In addition, a press release was issued on June 14, 1962, advising the public, the members of the press, and all interested persons that a public hearing would be held today to review these proposed agreements and amendments.

Our first witness this afternoon is Mr. J. Robert Schaetzel, Deputy Assistant Secretary of State. We are glad to have you with us this afternoon, Mr. Schaetzel. Please proceed.

STATEMENT OF HON. J. ROBERT SCHAETZEL, DEPUTY ASSISTANT SECRETARY OF STATE

Mr. SCHAETZEL. Thank you, Mr. Chairman.

I appear before your committee today to speak in behalf of the Department of State in favor of the recently concluded Agreement with Belgium for Cooperation on the Uses of Atomic Energy for Mutual Defense Purposes.

This agreement, which has been concluded pursuant to sections 91 c. and 144 b. of the Atomic Energy Act of 1954, as amended, is essentially the same as agreements we have concluded since 1959 with a number of NATO countries. By providing for the exchange of classified information and nonnuclear materials the agreements with Belgium will enable us to cooperate in developing plans and training

personnel so that Belgian forces assigned to NATO can effectively contribute, along with other NATO countries, to the collective defense effort. This agreement is thus an important part of the implementation of NATO defense planning. In our view the carrying out of this agreement should substantially advance our mutual defense interests, strengthen the NATO alliance, and thereby materially aid in the defense of the United States.

The agreement provides, among other things, for the transfer of classified information necessary to the development of defense plans, the training of personnel in the use of and defense against nuclear weapons and the evaluation of capability of potential enemies to use nuclear weapons. While the agreement permits the transfer of non-nuclear parts of atomic weapons systems to improve the training and operational readiness of Belgian forces, no transfer can be made under this agreement which would contribute significantly to the ability of Belgium to design, develop, or fabricate atomic weapons. I would like to underscore this point which is a critically important one. This agreement does not call for the transfer of nuclear weapons, or weapons design information to Belgium. It thus parallels the cooperation agreements we have concluded with other NATO partners. This agreement represents no change in our basic policy of opposing the proliferation of independent nuclear weapons capabilities. What it does do is enable Belgium and the United States to cooperate to improve the posture of Belgian forces which have a nuclear capability and to do this within the NATO framework. Any nuclear weapons which may be deployed in support of Belgian forces would, of course, remain in the custody of the United States.

In an uncertain world and faced with unknown dangers, NATO must continue to look to and strengthen its defenses. The members of NATO have made clear the importance they attach to maintaining the most modern forces, and that these forces must be capable of using nuclear weapons if necessary. Since NATO is building its military strength solely for defensive purposes, measures to increase that strength should not be a cause of concern to anyone.

As stated in the communique issued after the NATO ministerial meeting at Athens last month, the North Atlantic Council is convinced that if the alliance is to meet the full range of threats to its security, the balance between conventional and nuclear forces must be the subject of continuous examination. Conventional forces in NATO are being strengthened, and at the same time an effective nuclear capability is being maintained. The conclusion of this agreement is consistent with these policies of the U.S. Government and with the continuing alliance purposes of collective defense.

Belgium, as the President has stated, is participating with the United States in an international arrangement pursuant to which it is making substantial and material contributions to the mutual defense and security. The present agreement, by making possible improvement in the state of training and operational readiness of the Belgian forces assigned to NATO subject to appropriate conditions, will increase the collective strength of NATO.

I urge that your committee give this agreement favorable consideration.

Thank you.

Representative PRICE. Thank you very much, Mr. Schaetzel.

Now, is there any information or material to be transferred under this agreement that would make it possible for Belgium to develop an independent nuclear weapons capability?

Mr. SCHAETZEL. There is not, Mr. Chairman.

Representative PRICE. Is there any significant difference between this agreement and the others previously entered into with Turkey, Greece, The Netherlands, Germany, and Italy?

Mr. SCHAETZEL. No, sir, only in very minor details which is just because of the difference of the countries. Besides that, the agreement is identical.

Representative PRICE. At the bottom of page 2 of your statement you say that "conventional forces in NATO are being strengthened." What steps has Belgium taken to strengthen its conventional forces?

Mr. SCHAETZEL. This matter, Mr. Chairman, is now under active consideration by the Belgian Government. They have had political problems within Belgium itself which are typical of many members of the alliance, which is the difficulty of maintaining or even extending the term of service of troops, the maintaining of troops outside of Belgium.

We have reason to believe that the present Belgian Government is anxious to strengthen its contribution and make a greater contribution to the conventional forces of NATO.

But these observations which are made are anticipatory of what we expect is going to happen.

We earnestly think it will.

You will recall Mr. Spaak was here a couple of weeks ago during which this matter was discussed between him and the Secretary.

I think we will see additional steps in this direction by Belgium as well as by other members of the alliance.

Representative PRICE. Has the inclination of the other members of the alliance in recent months been to more nearly comply with the commitments to NATO?

Mr. SCHAETZEL. My impression, sir, on the basis of the meeting at Athens and developments subsequent to that, is that there is a greater awareness of the need for strengthening the conventional defense of the alliance.

This is a difficult subject because it is wrapped up in the whole question of general military strategy, the reliance on nuclear weapons as contrasted with conventional weapons.

As I think you know very well indeed, all nations in the alliance are trying to figure out what is the proper balance between the two.

I do think that we have been successful in the last few months in impressing upon our allies that a buildup of conventional forces is essential to the overall strength and essential to the credibility of our nuclear arsenal.

Mr. Chairman, could I add one other point?

Representative PRICE. Yes.

Mr. SCHAETZEL. I think you will now hear testimony from the AEC with respect to the extensions and amendments of several civil bilateral. I merely want to say, as I am sure you know, the State Department has been consulted at all steps in this process and we firmly

support the recommendations which the Atomic Energy Commission will present to you.

Mr. Howard Furnas, the Deputy Science Adviser, has assisted the State Department in these amendments and he will be prepared to assist if you wish to use him in the course of the proceedings.

Representative PRICE. Mr. Ramey?

Mr. RAMEY. Mr. Schaetzel was very actively associated with the Euratom agreement, so he has a particular interest in those civil amendments.

Mr. SCHAETZEL. I shall be very glad, Mr. Ramey, if you would like to have me stay during that part of the discussion.

Mr. RAMEY. No, it will not be necessary.

Mr. SCHAETZEL. Thank you.

Representative PRICE. The Defense Department will be next to testify.

Colonel Hooper, are you going to represent the Department of Defense?

**STATEMENT OF COL. PHILIP L. HOOPER, MILITARY ASSISTANT TO
DR. GERALD W. JOHNSON, ASSISTANT SECRETARY OF DEFENSE
FOR ATOMIC ENERGY, DEPARTMENT OF DEFENSE**

Colonel HOOPER. Yes, sir. Dr. Johnson sends his regrets. He apologizes for not being able to be here this afternoon.

Representative PRICE. Are you going to read his statement?

Colonel HOOPER. I can read it if you desire.

Representative PRICE. You may proceed.

Colonel HOOPER. Statement by Hon. Gerald W. Johnson, Assistant to the Secretary of Defense (Atomic Energy).

I am appearing before you on behalf of the Department of Defense in support of the agreement between the United States and the Government of Belgium in accordance with the provisions of sections 91 c. and 144 b. of the Atomic Energy Act of 1954. This agreement is essentially the same as the agreements for cooperation our Government entered into with the following member states of NATO: The Netherlands, Turkey, Greece, the Federal Republic of Germany, Italy, and France.

The implementation of the NATO stockpile concept other than the actual stockpiling of the weapons requires three steps to insure the attainment of a satisfactory atomic capability for the Allied Forces.

The first is the exchange of atomic information with NATO planners. This has in general been met by the atomic agreement with NATO authorized by the Atomic Energy Act of 1954. This agreement was ratified by each of the member countries and came into force in March 1956. It has permitted the NATO planners to develop theater defense plans and the essential force goals to support these plans.

The second is the identification of the force goals with the individual member countries. This identification is contained in the current NATO plans which give the overall force goals for the countries.

Now, the third step is the equipping and training of the non-U.S. NATO country with the specific atomic delivery units. In the case of Belgium, the proposed atomic delivery units included in the

Belgian goals are systems for land and air forces. A number of these systems have been delivered under the military assistance program.

The training requirement of this third step leads us to the agreement before the committee today. The Belgian forces can conduct basic training on the atomic weapons systems now in their hands. However, the final training to insure that the Belgian forces are capable of performing a satisfactory atomic mission with the aircraft delivery system, for example, cannot be completed until we are authorized to transmit information on loading, appropriate testing, including postload test, inflight monitoring, and possibly information on ground handling. Furthermore, the Belgian military staff, other than those assigned to major NATO commands, need the kind of information permitted in the agreement in the development of their defense plans, training of personnel, and the evaluation of the atomic capability of a potential enemy. In this connection, the training of NATO earmarked forces continues to be a national responsibility.

In addition, the basic weapons systems as furnished by the military assistance program may not in all cases include certain nonnuclear parts of the system which are those necessary accessories for handling the weapons, for attaching weapons to delivery vehicles, and for monitoring and checkout of a weapon to insure that it is safe and in proper operating condition prior to the mission. Nonnuclear parts of a system may include the control mechanisms, which are parts of aircraft or missile-launching devices associated with the bomb or warhead, lugs, pylons, and other devices for attaching the bomb to its carrier, and the like. Of course, these do not include any part of the bomb or warhead itself, but may include training shapes or simulators to assist in the attainment of an effective delivery capability. Since these items are components of the delivery system rather than of the warhead or bomb, it is desirable that arrangements be made for their transfer by sale under the military assistance program, thus making it unnecessary for Belgium to establish special production facilities for the limited quantities involved. No such transfers are envisaged at this time but may be appropriate in future systems.

I would like to go over in some detail the agreement itself. The agreement will permit under the authority of sections 91 c. and 144 b. of the Atomic Energy Act of 1954, as amended, the transfer of classified information and certain equipment necessary for the purpose of improving the state of training and operational readiness of the armed forces in Belgium in the context which I have described above.

Article II of the agreement provides for the transfer of classified information, including restricted data and formerly restricted data, necessary to the development of defense plans; the training of personnel in the employment of, and the defense against, atomic weapons and other military applications of atomic energy; the evaluation of the capability of potential enemies in the employment of atomic weapons and other military applications of atomic energy; and the development of delivery systems capable of carrying atomic weapons.

Article III of the agreement provides that the United States will transfer nonnuclear parts of atomic weapons systems involving restricted data (other than nonnuclear parts of atomic weapons) for the purpose of improving the state of training and operational readiness of the armed forces in Belgium. However, in view of section 91 c.

of the Atomic Energy Act, the applicability of which is reflected in article IV of the agreement, no transfer can be made if it would contribute significantly to the recipient nation's atomic weapon design, development, or fabrication capability.

The agreement would remain in force until terminated by agreement of both parties, thus assuring continued protection for the information and equipment transferred in accordance with the provision of the agreement. However, cooperation for the transfer of information and equipment under articles II and III of the agreement may be discontinued by either party in the event of the termination of the North Atlantic Treaty.

In accordance with the provisions of sections 91 c. and 144 b. of the Atomic Energy Act of 1954, the agreement specifically provides in article I that all cooperation under the agreement will be undertaken only when the communicating or transferring party determines that such cooperation will promote and will not constitute an unreasonable risk to its defense and security. Article I of the agreement also provides, in accordance with the act, that all cooperation under the agreement will be undertaken only while the United States and Belgium are participating in an international arrangement for their mutual defense and security and making substantial and material contributions thereto. Cooperation under articles II and III of the agreement would be undertaken only when these conditions prevail.

Article IV of the agreement stipulates that the cooperation under the agreement will be carried out by each of the parties in accordance with its applicable laws. Article IV also makes clear that there will be no transfer under the agreement of atomic weapons, nonnuclear parts of atomic weapons, or special nuclear material.

In addition to the foregoing provisions on the terms, conditions, duration, nature, and scope of cooperation, the agreement provides that the parties will maintain agreed security safeguards and standards. Because of previously established relationships with Belgium in the area of mutual defense, it has been possible to develop these mutually agreed security standards and practices.

There are additional safeguards built into this 144 b. agreement, with the Belgians and stringent controls are placed on information and materials made available under the agreement. Specifically, these include personnel clearances, physical security of atomic information, special controls on atomic information, the requirements for written security assurances on personnel participating in visits and conferences, and the provision for continuing review of the security system of Belgium. It is the considered opinion of the Department of Defense that the criteria, standards, practices, and procedures provided assure security protection of the information governed by the agreement in the responsible and comprehensive manner which is dictated by considerations of our own common defense and security.

The agreement also contains particular commitments that the recipient of any equipment or information that is obtained pursuant to the agreement will not transfer it to unauthorized persons and will not transfer it beyond the jurisdiction of the recipient party, except

in limited circumstances specifically provided in the agreement. I want to make it clear that the agreement does not provide for—

- (a) The transfer of special nuclear material;
- (b) The transfer of nonnuclear parts of atomic weapons;
- (c) The transmission of any information that would assist Belgium in the design, development, or fabrication of atomic weapons.

Belgium is now participating with the United States in an international arrangement pursuant to which Belgium is making substantial and material contributions to the mutual defense and security. It is the view of the Department of Defense that this agreement is entirely in accord with the provisions of the Atomic Energy Act of 1954, as amended. It is the considered opinion of the Department of Defense that the performance of the proposed agreement will promote and will not constitute an unreasonable risk to the common defense and security of the United States.

Sir, that concludes the Defense Department's statement.

Representative PRICE. Colonel Hooper, what contribution is Belgium making to NATO?

Colonel HOOPER. Sir, other than the very critical geographical position that Belgian forces play, Belgium is contributing essentially two reinforced divisions, not counting M-day additional capabilities which are on call. Being a small country, she does have a draft system in which her callup of reserves can be done in a short period of time. In addition Belgium has a small but well-balanced air force.

Representative PRICE. Under the agreement, is it possible for the Government of Belgium to transfer any of this classified information to a third country?

Colonel HOOPER. No, sir.

Representative PRICE. What do you mean at the bottom of page 6 where you talk about the agreement also contains particular commitments that the recipient of any equipment or information that is obtained pursuant to the agreement will not transfer, and so forth, except in limited circumstances specifically provided in the agreement? What are you referring to there?

Colonel HOOPER. Specifically the NATO agreement itself. The United States has an agreement with NATO, all of the countries in NATO as an organization. Within NATO you have Belgian planners. For example, at SHAPE, there are times when there has to be a transfer of information between the planners at SHAPE and the Belgian Government.

Actually, you could have a United Kingdom planner at SHAPE who would have to discuss restricted data with the Belgian that might involve some of this information.

Representative PRICE. Is this limited now to the governments with which we already have an agreement for cooperation?

Colonel HOOPER. Yes, sir.

Representative PRICE. It can only be to those countries?

Colonel HOOPER. Yes, sir.

Representative PRICE. Mr. Toll, do you have any questions?

Mr. TOLL. No questions.

Representative PRICE. Mr. Ramey?

Mr. RAMEY. No questions.

Representative PRICE. Thank you very much, Colonel Hooper.

Colonel HOOPER. Thank you, sir.

Representative PRICE. The next witness will be Commissioner Graham, representing the Atomic Energy Commission.

Will you proceed?

STATEMENT OF HON. JOHN S. GRAHAM, COMMISSIONER, ATOMIC ENERGY COMMISSION

Mr. GRAHAM. Mr. Chairman, we have a short statement in support of the agreement which has been read to you by Colonel Hooper.

If you would like me to read this, sir, I would be pleased to do so.

Representative PRICE. I think you might as well proceed. It is rather short.

Mr. GRAHAM. All right, sir.

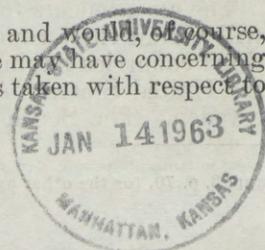
I have a statement today in support of the Agreement for Cooperation for Mutual Defense Purposes with Belgium which has recently been submitted to the Congress in accordance with sections 123 c. and 123 d. of the Atomic Energy Act of 1954, as amended.

Representatives of the Departments of State and Defense here today have discussed with the committee the background, principal provisions, and contemplated cooperation envisioned under the mutual defense agreement with Belgium. The agreement is similar in all of its major provisions with the agreements entered into earlier with the Netherlands, Germany, Greece, Turkey, Italy, and France. Like these earlier agreements, it is designed to strengthen NATO by making restricted data available for the training of Belgian forces assigned to or earmarked for NATO in the use of atomic capable weapons systems.

The agreement covers the transmission of information relating to defense plans, the training of personnel and the improvement of and defense against atomic weapons and other military applications of atomic energy as authorized under the 1958 amendment to section 144 b. of the Atomic Energy Act. It also covers the transfer of nonnuclear parts for atomic weapons systems necessary for improving the Belgian state of training and operational readiness. It does not cover the dispersal of atomic weapons or the communication of information concerning military reactors.

The Commission's role in the conclusion of the mutual defense agreement with Belgium, as in previous 144 b. agreements, has been limited to assisting the Department of Defense, since that Department has the primary responsibility for agreements negotiated pursuant to section 144 b. of the Atomic Energy Act. The Commission does, however, support this agreement and joined the Department of Defense in recommending to the President that its performance would promote and would not constitute an unreasonable risk to the common defense and security. Before joining in this recommendation, the Commission, together with the other Agencies involved, satisfied itself that adequate security procedures would be employed to protect information to be transmitted under this agreement.

Members of the Commission staff are present and would, of course, be happy to answer any questions the committee may have concerning the details of actions which the Commission has taken with respect to this agreement.



That, Mr. Chairman, concludes our prepared statement.

Representative PRICE. Mr. Graham, in the opinion of the Commission, would this agreement in any way be of assistance to the Government of Belgium in developing atomic weapons of their own?

Mr. GRAHAM. No, sir, I do not see how it could do that.

Representative PRICE. Is the agreement more or less identical with the agreements already entered into with the Netherlands, Germany, Greece, Italy, Turkey, and France?

Mr. GRAHAM. Yes, sir.

Representative PRICE. Thank you very much.

Do you wish to deliver your statement now on the civil agreements for cooperation with a half dozen countries?

Mr. GRAHAM. Yes, I have a short statement on this, Mr. Chairman, if I may proceed to read it.

Representative PRICE. You may proceed.

Mr. GRAHAM. I am pleased to appear before the Joint Committee today in support of amendments to several of our existing Civil Agreements for Cooperation as well as a new Civil Agreement for Cooperation with Argentina. The arrangements that we plan to discuss have recently been submitted, or are expected to be submitted soon, to the Joint Committee in accordance with section 123 c. of the Atomic Energy Act of 1954, as amended. The amendments to our agreements with Euratom, Brazil, Canada, Republic of China, Portugal, South Africa, and Thailand are already before you. The remainder, including amendments to agreements with France, Germany, Israel, West Berlin, and Greece, and a new agreement with Argentina, constitute the group which we expect to submit shortly.²

Mr. Chairman, if I may add a footnote comment, I would like to add another sentence to this, which is necessitated by the fact that, since this prepared statement was submitted to the committee, it has been possible to arrange for the signing of the amendments with France, Israel, and Greece and the new agreement with Argentina. These agreements were approved by the President on last Thursday, June 21, and were transmitted to your committee on Saturday, the 23d.

Returning to the prepared statement which had been previously submitted, the majority of these arrangements have in common the fact that they are limited to the immediate requirements of the cooperating parties. With the exceptions we shall note, all of the modifications are similar to provisions that previously have been incorporated in other agreements. In brief, the committee has received amendments to our two agreements for cooperation with Euratom. The amendment to the joint-program agreement, basically is designed to provide participants in the United States-Euratom joint program with the opportunity to lease their fuel as an alternate to deferred payment. The purpose of the modification to the additional agreement for cooperation with Euratom is to permit Euratom and its member states to receive U²³⁵, not employed in the joint program, for civil uses that are expected to arise within the Euratom Community.

The amendments to the French, German, and Canadian agreements will permit these countries to receive U²³⁵ for fabrication and use in third countries having appropriate agreements for cooperation with the United States. A similar amendment is under negotiation with Sweden. The South African amendment will permit South Africa

² See app. 2, n. 65, for text of agreement for cooperation with Argentina; also see app. 3, p. 70, for the other agreements mentioned above.

to have fuel for its research and materials-testing reactors under the same terms open to other countries.

Lastly, the amendments to the agreements with Brazil, Republic of China, Greece, Portugal, Thailand, and the new agreement with Argentina are all 2-year extensions of agreements that are due to expire in the very near future. These extensions were executed as an interim measure after efforts were made to encourage the other countries to work through the IAEA. Each amendment, however, contains additional language which is designed to facilitate a transfer of safeguard responsibilities to the Agency. It is our intention to continue to encourage these countries to transfer the safeguard responsibilities under our agreements to the International Atomic Energy Agency.

I shall not ask Mr. Wells to review these arrangements in greater detail and will, of course, be pleased to answer any questions that the committee may have.

Representative PRICE. Mr. Graham, there is a yea-and-nay vote in the House. The chairman has to answer that rollcall. When I return, we will resume with Mr. Wells.

The committee will recess until the conclusion of the rollcall.

Representative PRICE. The committee will come to order.

When we were so rudely interrupted by the rollcall, you were about to present Mr. Wells.

Mr. GRAHAM. With your permission, Mr. Wells will go ahead.

STATEMENT OF A. A. WELLS, DIRECTOR, DIVISION OF INTERNATIONAL AFFAIRS, ATOMIC ENERGY COMMISSION

Mr. WELLS. Mr. Chairman, I shall now describe the main feature of each of the amendments that Mr. Graham has referred to.

First, amendments to the United States-Euratom agreements is the one to the agreement for cooperation of November 8, 1958, which is often known as the joint program agreement. The major change in this agreement will permit Euratom to lease enriched uranium fuel inventories for power reactors under the United States-Euratom joint reactor program, as an alternative to the present deferred payment sale arrangement. The United States originally offered to lease such inventories as a part of the joint program incentives, but Euratom felt at that time that lease would be contrary to Euratom policy. Subsequently, Euratom reconsidered its position and requested that lease be offered as an alternative to deferred payment sale, which each project selected under the joint program being permitted to select its preferred arrangements. Since deferred payment sale and lease are substantially equivalent insofar as our economic interests are concerned, we have agreed to amend the agreement to permit participants to choose between the two. However, consistent with the Commission's consideration of private ownership in the United States, any lease arrangement made by Euratom would revert to sale should operators of comparable power reactors in the United States be required to purchase their fuel.

In addition to lease, the amendment includes a new article to afford indemnity protection to the United States, as required by section VII of the Euratom Cooperation Act. Such protection has, to date, been

obtained by specific provision in the individual contracts, but both the AEC and Euratom believe that a blanket article in the agreement is a more satisfactory long-term solution. Finally, the patent article of the agreement has been amended to provide that certain licenses for inventions made under the joint research and development program after the amendment comes into force will be limited to the atomic energy field. This amendment was included to enable Euratom and the AEC to afford rights to contractors on nonnuclear applications of patents under the joint program, in accordance with the normal patent policy of both the AEC and Euratom.

May I stop here and ask, Mr. Chairman, is it your pleasure that questions be directed as we finish each category?

Representative PRICE. The Chair thought we would go to the conclusion of the statement on Euratom, page 4, just before you start the amendment to the French and German agreements.

Mr. WELLS. Thank you, sir.

The second series of amendments is to the United States-Euratom additional agreement of June 11, 1960. The principal amendment makes available to Euratom and its member states, for a broad spectrum of civil uses the portion of the 30,000 kilograms initially allocated to the joint reactor program which is not required for that program. This amount will depend on the type and number of reactors built under the joint program.

For example, if a second large reactor is accepted in the 1965 phase of the joint reactor program, making a total of three reactors in the program, about 8,000 or 9,000 kilograms of U^{235} will be available under this provision of the amended additional agreement. This would permit the fueling of one large power reactor for 20 years, in addition to providing a reasonable amount of material for foreseeable research and development uses. The amendment makes such material available for all uses normally found in our "power agreements" and additionally would permit certain new applications, including direct conversion and fueling of nuclear-propelled merchant vessels. This amendment is the first to follow the general outline of the Commission's policy for enriched uranium distributed abroad as announced by Commissioner Wilson before the joint United States-Japanese atomic industrial forum meeting in Tokyo last fall. It provides that if the material included for power applications is not placed under firm contract within 5 years of the effective date of the amendment it may be allocated by the United States to other uses. This approach insures that significant quantities of enriched material are not immobilized if plans for their use do not materialize.

Another new feature of this agreement is that which provides that the enriched uranium may, at the discretion of the United States, be made available at assays above 20 percent U^{235} where there is a demonstrated economic or technical justification for more highly enriched material. This will enable the distribution of material for power reactors of types which require highly enriched uranium: for example, the seed-and-blanket reactor or the spectral shift control reactor. You will recall that the possibility of such a modification in our materials policy was foreshadowed by Commissioner Wilson's speech of last December. As noted below, a similar provision has been incorporated in the amendment to the Canadian agreement.

In addition, the amendment permits the supply of enriched uranium to Euratom for conversion or fabrication for use in third countries with which the United States has appropriate agreements for cooperation. The Joint Committee was informed on June 12, 1961, that the Commission had approved a policy which would permit such transfers. This policy was based on the principle that removal of the existing limitations would serve U.S. interests by enhancing the attractiveness of U^{235} and enriched uranium reactors abroad. The same conclusion was reached by the special study group on foreign fuel distribution of the Atomic Industrial Forum.

The amendment also contains the necessary language to permit, when approved by the United States, the chemical processing within the Community of enriched uranium of U.S. origin, with return of the recovered special nuclear materials to other countries or retention in the Community, under appropriate agreements for cooperation with the United States. The latter amendment is a necessary step toward the use of Eurochemic's Mol facility for the reprocessing of such irradiated, slightly enriched fuels, with attendant transportation cost savings for northern European countries. The prospect that other countries might wish to establish their own reprocessing facilities has long been recognized by the United States and you will specifically recall that a number of our comprehensive power agreements have been drafted so as to permit the processing of transferred U^{235} to take place in Commission facilities or facilities acceptable to the Commission. The design of the Eurochemic processing plant is currently under AEC review, with the principal objective of assuring that the plant design will permit the effective application of safeguards.

Finally, an article has been added which would permit the transfer of significant quantities of U^{233} and plutonium for other than research purposes. The language of this provision is permissive only, and Euratom has been informed that its inclusion in the amendment represents neither implied nor explicit agreement on our part to supply any plutonium for its planned fast reactor program or for other similar programs. Any transfers of plutonium in addition to the 9 kilograms already authorized by Congress would require amendment to the Euratom Cooperation Act.

And I might add that any transfers of U^{235} would also require specific authorization by Congress.

Representative PRICE. Mr. Wells, on page 2 of your statement you indicate that one of the amendments makes the material available for fueling power reactors outside the joint program. Why should the United States encourage construction of reactors outside the joint program?

Mr. WELLS. Mr. Chairman, the joint program itself was from the very beginning recognized as only a first step. It was hoped that some five or maybe six reactors would be built under the program. Ultimately in Western Europe there will be perhaps many more than that. The object of this is to not limit the construction of reactors to the five or six that were envisioned by the original joint program.

Representative PRICE. Will the United States receive any information concerning the Euratom reactors constructed outside the joint program?

Mr. WELLS. Yes, sir; We have a very close working relationship with Euratom. There are fairly continuous exchanges of visits with Euratom on all these points.

Representative PRICE. How will payment be made for fuel furnished outside the program?

Mr. WELLS. The present policy is sale by the United States of the fuel.

Representative PRICE. On a preferred basis or in what way?

Mr. WELLS. Just a straight commercial sale not on the deferred payment plan.

Representative PRICE. How many kilograms of U²³⁵ have been allocated for the SENN reactor?

Mr. WELLS. Something between 5,000 and 6,000 kilograms. I believe it is about 6,000 kilograms.

Representative PRICE. How about the SENA reactor?

Mr. WELLS. That will run about 8,000 kilograms, maybe a little less.

Representative PRICE. At the top of page 3 you state that material which is not placed under firm contract within 5 years may be allocated by the United States to other uses. What are these other uses?

Mr. WELLS. We mean uses other than in Euratom. In other words, we would be free then to use that material under bilateral agreements or with some other country or for that matter in the United States. To make this clearer, let me add that there is a Presidential allocation for all of the material that is committed to these countries. If Euratom does not make firm contracts within 5 years it could be used in Euratom for other uses or we could use it for our own purpose.

Representative PRICE. Why do we wait 5 years?

Mr. WELLS. It was thought that 5 years is about the necessary lead-time.

Representative PRICE. You referred to the seed in blanket reactor. Is there any development in Euratom under way on the seed in blanket concept?

Mr. WELLS. I believe they are beginning in general some work on the problem. We have Dr. Vander Weyden with us, Mr. Chairman. May I be permitted to ask him.

Mr. VANDER WEYDEN. I believe they have no specific program on seed and blanket at the present time but they have shown an interest in the studies which we are making now. I anticipate that the study will be made available to them but they have made no commitments to proceed with the reactor.

Representative HOSMER. How about the spectral shift control reactor?

Mr. VANDER WEYDEN. They have shown quite a bit of interest in the spectral shift concept. One possible application they are looking at is the use in a shipboard reactor, so they have some studies on spectral shift.

Representative PRICE. On page 4 in discussing Eurochemic you state that:

The design of the Eurochemic processing plant is currently under AEC review, with the principal objective of assuring that the plant design will permit the effective application of safeguards.

Isn't the Eurochemic plant already under construction?

Mr. WELLS. I think it is in the very early stages, Mr. Chairman. It has not progressed to a point that would prohibit design changes should they prove necessary.

Mr. RAMEY. Under your armaments would it be possible for an organization that wanted to get under the joint program and was not able to get fuel outside the joint program and thereby get the advantages of the joint program, for example, fuel buy back.

Mr. WELLS. They would not be able to get fuel buy back. A utility which wanted to build a reactor and met this 5-year deadline could obtain their material, but they would have to pay for it. It would be on the same basis that material would be sold to Sweden, Brazil, Japan, or anybody else. They would not have the advantage of the incentives that were in the joint program, those incentives being the loan of the money, buy back of plutonium and those things.

Mr. RAMEY. How about just the fact of getting an \$8 price for the material? This is thought to be an incentive to some organizations.

Mr. WELLS. I am sorry. I am not sure I understand.

Do you mean the sale of the uranium at \$8?

Mr. RAMEY. No, the buy back of plutonium.

Mr. WELLS. They would not be assured that the United States would purchase the plutonium. This does not contemplate any commitments to purchase the plutonium.

Mr. RAMEY. How will the purchase of plutonium be determined, then? Is it on a case-by-case basis?

Mr. WELLS. Under the present policy it would have to be.

Representative PRICE. Under the joint program at the present time you have only two reactors, SENN and SENA.

Mr. WELLS. Yes, sir.

Representative PRICE. Have you extended the deadline for this program?

Mr. WELLS. Yes, sir; the deadline for receiving application was extended 60 days, that is, until August 1.

Representative PRICE. This is a short extension that indicates that you anticipate some proposal to come in within this period?

Mr. WELLS. Yes, sir; there is at least one proposal that is expected and there may be others. It looks as if some others would qualify for the program and would be good additions to the joint program.

Representative PRICE. You say there may be others. Do you know of any anticipated proposals other than the one you say that it looks like it has a good chance of coming in?

Mr. WELLS. Yes, sir. There is one project which we refer to as RWE. It looks almost certain that the application will be formally submitted. This is a boiling water project.

There is another project, an organic-moderated project which may come in. I will have to be "iffy" about both of those.

Representative PRICE. Where is the RWE?

Mr. WELLS. In Germany. Both of these reactors would be in Germany.

Representative PRICE. Both that you just mentioned are in Germany?

Mr. WELLS. Yes, sir.

Representative PRICE. You only expect one of them under this extension?

Mr. WELLS. We may get applications for both of them, but we are under the present law, authorized to accept only one of them. There can be only three reactors. We have SENN and SENA, so there can only be one other under the present legislation.

Representative HOSMER. Getting back to this plutonium buy back, the Commission has requested certain amendments to the Atomic Energy Act relating to the plutonium buy back price and the price that would be paid for any plutonium under these Euratom arrangements is governed by the atomic energy statute, is it not?

Mr. WELLS. Yes, sir; it would have to be.

Representative HOSMER. Would it be helpful to have this recommended legislation enacted this year with respect to any of these arrangements with Euratom or any other countries?

Mr. WELLS. Mr. Hosmer, I would have to give an off-the-cuff answer to that. As far as my responsibilities are concerned with the international agreements, I do not think that the enactment of this legislation is necessary this year. It might be for other reasons.

Representative HOSMER. Is that based on the fact that there probably will not be any contracts finalized during this period?

Mr. WELLS. That is it.

Representative HOSMER. How about from the standpoint of negotiating contracts that would be signed possibly 18 months from now?

Mr. WELLS. Should the Congress see fit to enact legislation that would give the Commission the authority to make long-term commitments for buying back plutonium and if the Commission established that policy, this, of course, would encourage, and it would be very useful to a prospective foreign user or users, because they are very much interested in finding a place to sell their plutonium.

Representative PRICE. Does it not work on the basis of the fuel value?

Mr. WELLS. I think, under the program, the only specification for price relates to the joint program. Mr. Ramey, you look quizzical. Am I wrong about that?

Mr. RAMEY. I am not sure about that. The fuel value provision is written into the Euratom Act, and in that sense it is an improvement on the Atomic Energy Act, where it is not written in expressly.

Mr. WELLS. It is certainly fuel value for other than weapons. I think what is presently in the act refers to the joint program reactors which are the three we have been talking about.

Representative HOSMER. Would it not be advantageous if the European producers, power producers, were on the same basis as those in the United States as far as negotiating these contracts and in coordinating the technologies both at home and abroad?

Mr. WELLS. Yes, sir; that would be a boon for our international program.

Representative HOSMER. With respect to your plan to lease as opposed to the sale arrangements, who gets the proceeds from such arrangements through the rentals or the purchase payments? Do they go to Euratom and then to the United States? Does the United States in any way recover its cost of this fissionable material?

Mr. WELLS. Ultimately it comes to us. We get the use charge in the case of materials just as if the leases were made domestically.

In the deferred payment plans, the United States also gets the money.

Representative HOSMER. What control does the United States have on the fixing of either the lease charge or the purchase payment price?

Mr. WELLS. These have been written into the agreements. In the case of the lease plan, it would be the same as the domestic users, for example, $4\frac{3}{4}$ percent use charge. In the case of the deferred payment plan, it is a plan that has been specified in the supplements to the original agreement for cooperation covering the joint program.

Representative HOSMER. In other words, both the U.S. Government and the U.S. developers are fully protected vis-a-vis the competition from abroad.

Mr. WELLS. Yes, sir.

Representative PRICE. Before you proceed and while we have a good attendance to the committee here, I would just like to relay a message from the chairman of the full committee to you, Mr. Graham.

Mr. Holifield asked me to express his regrets that he could not be here today for your last appearance here before the committee. He is out in Kansas City on business connected with the civil defense program. He asked me to read the following letters which you sent to him and he sent to you, sir.

(The letter referred to follows:)

DEAR MR. CHAIRMAN: As you know, my resignation as a member of the Atomic Energy Commission becomes effective on June 30, 1962. I was first appointed in June 1957 for the 2-year unexpired term of the late Dr. Von Neumann, and then reappointed in June 1959 for a full 5-year term. Thus I will have completed 5 years since first nominated, although I was not confirmed until later in the summer of 1957.

I cannot let this term of office come to a close without expressing my appreciation to you, and through you to the other members of the committee, for the valuable help and assistance which was rendered to me. I also appreciate the many courtesies which were extended individually and collectively both by the committee itself and the competent staff.

This letter may be the equivalent of the story about "Man Bites Dog"—to have a so-called bureaucrat thanking a congressional committee. However, I have said, and believe, that the Joint Committee is like a man's wife—his best friend and severest critic.

With all good wishes for a continued valuable contribution to the public service.

Sincerely,

JOHN S. GRAHAM.

(Reply from Chairman Holifield follows:)

DEAR JOHN: I have your letter of June 18 advising of your resignation from the Commission effective June 30, 1962. I want to take this opportunity to say how much I have enjoyed our association during your service on the Atomic Energy Commission and how sorry I am that you will be leaving. You have served on the Commission for 5 years, equivalent to a full term and I know that your service to the Government has been at a personal sacrifice. The United States has been most fortunate in having a man of your high moral standards and deep devotion to duty giving his time to its affairs.

Those of us closely associated with the Atomic Energy program know very well the great contributions you have made, particularly in the field of civilian-military responsibility. This was accomplished by you in your quiet effective way without publicity. While the great mass of the public may not know the debt of thanks owed to you, those of us who are responsible for and intimately knowledgeable of our country's atomic energy program are aware of the magnitude and importance of what you have accomplished.

With my very best wishes to you for a continued success in private business, I am,

Sincerely yours,

CHET HOLIFIELD, *Chairman.*

Representative HOSMER. For my own part, I want to join in as a second to Mr. Holifield's sentiments. I have long admired your devotion to the public interest. For example, I recall your dissent on a power demonstration agreement which did not provide adequate protection for construction of the plant. I recall also the great support that you have given to the naval reactor program and to Admiral Rickover. We are going to miss you very much.

Senator GORE. This is one matter, Mr. Chairman, in which there will be no need for a conference committee between House and Senate. I concur fully, not only in the words of commendation, but also wish to express deep regret that Mr. Graham feels the necessity of leaving the Commission. But with his going he takes with him our hopes and our best wishes for the greatest possible store of success and happiness.

Representative HOSMER. Mr. Chairman, I certainly wish to join in with the statements that have been made in respect and honor and friendship to Mr. Graham because in every sense of the word he has earned and deserves them and I only hope that opportunities will be presented in the future that we may work with Mr. Graham again.

Representative ASPINALL. Mr. Chairman, I, too, wish to join in expressing our appreciation for the fine work that has been rendered by Commissioner Graham throughout the years. I wish him well in the years that are ahead of him.

I want him to know that as far as I am concerned, one of the newer members of this committee, that I have come to know of his work, the value he has been, the very modest and effective way in which he has worked and, John, I shall miss you more, immensely more, than any words of mine can express.

Mr. MORRIS. Mr. Chairman, I would just like to say that I have not been a member of the committee as long as the great majority of the members, and have really had only two occasions to become rather well acquainted with Mr. Graham in problems involving Commission business. On each of those two occasions, I think he handled them in the very best way possible. He was just as fair, conscientious, and knowledgeable about the problems of the Commission as any one could be.

I realize that 5 years is a short time in some respects but I think that 5 years service on the Atomic Energy Commission with the problems that a Commissioner has to face would seem more like a lifetime. I extend my best wishes to him.

Senator GORE. Mr. Chairman, this causes me to have some second thoughts. I am suspicious now that the Congressman from New Mexico has had better success with the Commissioner than I have. Maybe he has had more luck with the project in his State than I have in mine at Oak Ridge.

Mr. MORRIS. On one of these projects Mr. Graham said "No" and on one of them he said "Yes."

Senator GORE. That is a fairly good batting average.

Mr. MORRIS. Nevertheless, he was very fair and objective in both instances.

Senator GORE. So long as you did not score 1,000 percent, I will relent.

Mr. MORRIS. I know the State of Tennessee has not done too badly.

Mr. GRAHAM. Mr. Chairman, may I make an observation here?

I am deeply touch by your courtesy and the other members of the committee for what you have said here. I want to paraphrase the letter which I wrote to Mr. Holifield which asked that he express to the members of the committee and the competent staff my deep appreciation for the many courtesies and assistance which has been rendered to me during these past 5 years.

I concluded the letter by saying that maybe the equivalent of the story about man bites dog, that is a so-called bureaucrat would be thanking a congressional committee for the assistance and help which has been rendered to me, and I repeated in the letter which I have said privately and believe in, that the Joint Committee has been something like your wife, it is your best friend and severest critic, and I want to conclude on that note that again I thank all of you for offering your patience and certainly your understanding.

Thank you, sir.

Mr. RAMEY. Mr. Chairman, on behalf of the staff I would also like to say how much we regret to see Mr. Graham leaving the Commission. I had the privilege of making our NATO trip with him in November and December of 1959. I believe his concern as to the civilian control of atomic energy and particularly our weapons requirements problem has made a real contribution to the solution of it.

I would also like to note that Mr. Neil Naiden, the AEC General Counsel, is also leaving the Commission to enter private practice. Certainly at the staff level and with the staff members Mr. Naiden has continued the great tradition of the AEC legal staff in calling their shots independently and in cooperating with the Joint Committee and its staff, and I know we are all sorry to see him go.

Representative PRICE. Mr. Wells, would you proceed with your statement?

Mr. WELLS. The next portion, Mr. Chairman, deals with amendments to the French and German agreements. May I point out because of translation difficulties we were not able to submit the amendment with the Republic of Germany last Saturday but it will be completed, we hope, in a day or two. It is included in the statement since it is so closely related.

2. Amendment to French and German agreements: The amendments with France and Germany contain a provision similar to that included in the Euratom amendment to permit each of these countries to convert or fabricate U.S.-supplied special nuclear material for use in reactor projects in third countries with which the United States has appropriate agreements for cooperation. The French and German authorities requested this provision since they have the industrial capability to convert or fabricate special nuclear material and are currently interested in performing these services for reactor projects in other countries. In addition, the amendment to the French agreement will permit the transfer to France of up to 100 kilograms of U^{235} enriched up to 90 percent for the performance of certain criticality experiments which are of importance to the French civil program. The Joint Committee was informed of the French interest in receiving material for such purposes on January 2 and April 25, 1962. Specifically, the French are interested in receiving this material for use in a series of criticality experiments which would be performed, over a 3-year period, at its central criticality station in Dijon. This

experimental program will include a series of basic investigations in several areas that have not been developed to date, as well as several applied experiments specifically designed to establish and verify the safety characteristics of fabrication and fuel processing plants being constructed as part of the French civil program. We have been advised that the Euratom Commission has favorably reviewed the French and German amendments in terms of their compatibility with the Euratom treaty. We further have been assured by the French that none of the criticality measurements will be designed to service their military programs.

Representative PRICE. How much material is allocated under the Canadian agreement?

Mr. WELLS. The Canadian agreement, Mr. Chairman, was one of the first bilaterals that the United States made, and I think this was back in 1955. In view of the very close relationship between Canada and the United States, there was no limitation as such placed in the Canadian agreement. The agreement permits the quantity of materials as might be agreed from time to time.

Representative HOSMER. Up to 20 percent enriched?

Mr. WELLS. Yes, the degree of enrichment was limited to 20 percent.

Representative PRICE. How much has actually been transferred?

Mr. WELLS. I do not have the information on that, Mr. Chairman. I think I have a figure here of 85 kilograms which I believe is accurate but I will provide for the record if it is not. There has been surprisingly little material. This has been due of course to the fact that the Canadians are just getting their large power reactors built. They are going the route of the natural uranium fuel so they have not required much U^{235} from us.

Representative PRICE. What are the terms of payment?

Mr. WELLS. It is sale except for research purposes.

Representative PRICE. You say:

The immediate purpose of this latter provision—

and this is in relation to what you say at the top of page 6—

is to permit an American-owned firm in Canada to fabricate material for customers in the United States.

Mr. WELLS. It is an American firm incorporated in Canada. I don't remember the name of it—A.M. & F Atomics. I believe they can fabricate fuel elements in Canada and sell in the U.S. market. I don't know if they have any contracts or letters of intent but they were interested in having that possibility. The Canadian Government was interested in their having the possibility. Since this is consistent with the general principle of our not putting special conditions on the transfer of U^{235} the Commission felt that it was the right thing to permit this to be done.

Representative PRICE. Would this indicate any favorite treatment?

Mr. WELLS. No, sir; not at all. They would have to compete on the same basis as any of the other firms that are manufacturing these fuel elements.

Representative PRICE. Mr. Hosmer?

Representative HOSMER. Why would this particular firm choose to do its fabrication in Canada rather than in the United States?

Mr. WELLS. Well, in this particular case, Mr. Hosmer, I don't know the specific reasons. I could obviously mention the things that come to mind that might cause a firm to want to do that. Maybe they feel that they have better labor supply there. Maybe they for some reason or another are developing and expanding their operations in Canada.

Representative HOSMER. It looks like it may be to undercut the domestic fuel fabrication industry, would it not? At least your first reason would indicate that.

Mr. WELLS. I think there is no question that they would hope to compete favorably but I don't know of any reason why they would be able to produce fuel elements there if any higher quality or any less expensively than they could in the United States or than one of their competitors might do in the United States.

Representative HOSMER. That is why I just don't quite understand the reason for this particular provision. Do you have something further?

Mr. VANDER WEYDEN. I do know from my own experience up there that the A.M. & F. was selected by the Canadians to fabricate fuel elements for the Canadians so they have built up some fabrication capability and I imagine they want to extend the capability that the company has in Canada for fuel element fabrication to include enriched uranium.

Representative HOSMER. We had a complaint from some drug firm during another set of hearings that when they sent certain materials up to Canada for irradiation, when they got the isotope back, there was a tariff involved at the United States-Canadian border. Is there any tariff involved with respect to these fuel elements that may be fabricated in Canada?

Mr. WELLS. I think there is a tariff involved, Mr. Hosmer. I don't believe there has ever yet been a case where the customs people have had to decide what the specific tariff is.

As I recall, it is not specified as such in the list but I believe that I am right that there would be a tariff applied. I don't know what the particular percentage would be.

Representative HOSMER. There are also tariffs by various other countries with respect to fuel elements manufactured in the United States and exported to those countries, are there not, to wit, the Euratom countries have something?

Mr. WELLS. I do not remember the details again. In due course, I think it is maybe 3 years hence, there would go into effect some tariff on reactor components from the United States into the Euratom countries.

Representative HOSMER. Is there a difference in treatment of Canadian manufactured fuel elements than United States manufactured fuel elements in any of the Euratom countries or any of the other countries that might be purchasing fuel elements as between United States and Canadian manufacturers who might be competing for the sale.

Mr. WELLS. As I recall, the tariff arrangements, it is that the tariff would be placed on the commodity regardless of its source. In other words, it would be the same tariff whether it came from the United States or from Canada.

Representative HOSMER. It would not be true with respect to the United Kingdom?

Mr. WELLS. If the United Kingdom joined the Common Market there would be probably a difference there.

Representative HOSMER. At the present time it is not true?

Mr. WELLS. I believe the tariff is so set up that any import into the European community of six will bear the same tariff whether it comes, for example, from Japan, the United States, Canada, or the United Kingdom.

Can any of my colleagues confirm this?

Mr. KRATZER. That is true but there is a lower tariff on enriched elements. So to the extent that fuel elements would be natural uranium they would carry a higher tariff when entering the Euratom markets.

Representative HOSMER. This puts the Canadians on a competitive basis from a tariff standpoint with the United States in selling these elements inside or outside the Common Market.

Mr. WELLS. I think the answer to that is "Yes."

Representative HOSMER. Vis-a-vis the commonwealth countries, it puts the Canadian manufacturer at a distinct advantage as of now.

Mr. WELLS. Our fabricators could fabricate natural uranium elements also. I think it is not a discrimination with respect to the country from which it comes but with respect to the element itself. Canada is spending its efforts toward the natural uranium reactor.

Representative HOSMER. That could or could not be. I hoped we could have a more clear idea.

The statement you have made, Mr. Wells, is that this amendment to the Canadian agreement will permit transfers at higher than U²³⁵. How high does it go?

Mr. WELLS. One of the immediate needs that Canada has is to receive some enriched rods to be used in the control system of the large reactor which I have mentioned.

Representative HOSMER. The Douglas Point reactor?

Mr. WELLS. Yes, sir; this will be for very limited quantities. As a matter of fact, I think it is something between 4 and 5 kilograms, and in this case it would be up to 93 percent enrichment.

Representative HOSMER. But the terms of the amendment do not mention a limitation to the Douglas Point reactor specifically and only. It could go on now in greater quantities once the amendment is agreed to?

Mr. WELLS. Well, the amendment is broad enough to permit other such transfers, but we are very conscious of the importance of these kinds of transfers and I don't see anything in the future that suggests to me that there will be anything other than this in Canada for some time. Should the occasion arise in which the larger quantities were needed, we would certainly inform the committee as we do on these transactions long before they occur.

Representative HOSMER. There must be some contemplation of additional transfers otherwise your amendment would have referred to this specific case, period.

Mr. WELLS. Mr. Hosmer, I think I can say categorically that I do not know of any and my staff does not know of any. The reason

we did not tie it to this particular thing was because normally you try to avoid making the amendment so tight that it covers just the particular transaction.

You see, the situation is that Canada is developing the natural uranium reactors.

Representative HOSMER. They are building a 200-megawatt heavy moderated water reactor that needs rods.

Mr. WELLS. It is just a booster. This came along rather late. We didn't know until just a few months ago that they were going to need some highly enriched uranium in their rods. It is not likely that they will want to obtain large quantities of highly enriched uranium.

Representative HOSMER. If they had it available when they designed this thing, they would probably be wanting about 200 kilograms instead of what they are getting. Once you open the door they would start using it.

Mr. WELLS. I hesitate to say that they would since Canada has placed a great deal of its national effort toward a different type of reactor altogether. I believe that if their technical people had an opportunity to respond to your question they would say they preferred the natural uranium reactor.

Representative HOSMER. Natural uranium reactors with 90 percent enriched uranium?

Mr. WELLS. That is right, with some boosters.

Representative HOSMER. Let's go to Canada being able to receive U^{235} for export.

What degree of enrichment is involved there, 90 percent?

Mr. WELLS. Fuel elements up to 90 percent could be involved there but again it is at the option of the United States.

Representative HOSMER. Again there is no limitation on the quantity.

Mr. WELLS. The limitation on the quantity in this kind of case comes from the limitation on the recipient country and I should have made that clear in the earlier part of the statement.

This can be done only if the third country; that is, the country building the reactor and getting the fabricated fuel element from Canada, has an agreement for cooperation with the United States. It has to be within the quantity of materials that that country could receive and it would have to be within the degree of enrichment that was applicable.

Representative HOSMER. Aside from France, you tell me there is nobody who is entitled to large quantities of highly enriched U^{235} , is that right?

Mr. WELLS. I mentioned in the case of France and when we were talking about the 100-kilograms criticality experiment, that there is no other project that I know which requires that much U^{235} . The other countries that have bilaterals which enable them to get enriched material up to 90 percent generally are the countries that need it for research reactors and materials testing reactors. The reactor generally has to be small enough to be capable of operating on an 8 kilogram core loading.

Representative HOSMER. Is this amendment to the Canadian agreement going to require the material to go to a small experimental reactor?

Mr. WELLS. Let me separate the points. The Canadian has an amendment on more than one point. First of all, it permits Canada to receive materials enriched higher than 20 percent.

Representative HOSMER. I am talking about the second part which has to do with the fabrication and reexport of U^{235} .

Mr. WELLS. That portion is to enable Canada to fabricate fuel elements for other countries and it has nothing to do per se with the degree of enrichment. It is not related to the fact that we are also permitting Canada to get material up to the 93 percent for the booster rods. But when you asked me the question, Would this permit Canada to fabricate a 90-percent-fuel element, I said "Yes." This would be so if the country to whom the fuel element was to be sold had an agreement for cooperation with the United States which permitted them to receive the transfer of 90 percent material for a research reactor or materials testing reactor.

Representative HOSMER. At least this will give us another competitor for the fabrication of fuel elements, whoever is permitted to buy them under a bilateral?

Mr. WELLS. That is right. It might be useful to the committee for me to emphasize the fact that the amendment to the French agreement, the amendment to the German agreement, the amendment to the Canadian agreement, and to the Swedish agreement which is now under negotiation provide that these countries can fabricate fuel elements and sell them abroad. That raised the question, and the Commission gave careful consideration to it, whether or not this was a desirable thing to do because of the reason that you mentioned—that it creates competitors for our own industry.

In trying to find the right answer to this question, we consulted with our industry. The Atomic Forum had a subcommittee which dealt with the problem of principles that should apply to the distribution of materials, and this committee of the Atomic Industrial Forum concluded that it was in the long-range interest of the United States not to place these artificial conditions on the distribution of our materials. I think that it is fair to say that the basis for that was that American industry feels that it can compete—it can compete with quality and it can compete with price. They were afraid if we were to use our monopoly of U^{235} to require that people always got their fuel elements fabricated in this country that it would tend to cause people to prefer and spend more time and effort on developing natural uranium reactors rather than utilizing the clear advantages of the enriched uranium reactors.

This was not a decision lightly arrived at.

Representative HOSMER. That might be an explanation and also another explanation might be that it is just a de facto recognition that American manufacturers are not going to export very much hardware. This is a more or less tacit withdrawal from the export area despite your statements about our competitive ability.

Mr. WELLS. I do not get the impression from the representatives of industry that I see from time to time that they are withdrawing. Some of them are still working pretty hard.

Representative HOSMER. They are selling a few fuel elements, but when you come to the major components of these reactors they are

making them over in Germany, Italy, and the rest of the countries that are putting up the reactors.

Mr. WELLS. Many of the countries do have licensed arrangements that way.

Representative PRICE. Would you proceed, Mr. Wells.

Mr. WELLS. Thank you, Mr. Chairman.

3. Canadian amendment: As in the case of Euratom, the amendment to our agreement with Canada will permit transfer of enriched uranium at enrichments higher than the 20 percent U^{235} limitation in the existing agreement for use in power reactor programs in Canada. Transfers under this provision of the amendment will be made only in the discretion of the United States, and then only when there is a technical or economic justification for such action. The immediate purpose is to enable Canada to receive highly enriched rods for the control system of the 200 megawatt-electric heavy water moderated nuclear power station being constructed at Douglas Point, Ontario.

The Canadian amendment provides Canada with the opportunity to receive U^{235} for fabrication and reexport to third countries having appropriate agreements with the United States. It also will permit Canada to convert and fabricate U^{235} as a service to U.S. reactor operators. The immediate purpose of this latter provision is to permit an American-owned firm in Canada to fabricate material for customers in the United States. The Joint Committee was informed, on January 31, 1962, of the Commission's intentions to accommodate the Canadian request to receive special nuclear materials for such purposes.

Representative PRICE. How much material had been allocated under each of these bilateral agreements?

Mr. WELLS. The French agreement had a ceiling of 2,500, of which 328 kilograms of U^{235} and 1 kilogram of plutonium has actually been transferred to France.

Representative PRICE. Under both of the agreements?

Mr. WELLS. This is just the French agreement.

The German agreement also has a ceiling of 2,500 kilograms of material and under this agreement 220 kilograms of U^{235} had been transferred and 46 grams of plutonium.

Representative PRICE. What is the justification for continuing these French and German agreements rather than continuing to obtain it through the Euratom agreement?

Mr. WELLS. In each of these cases, Mr. Chairman, consultation was held with the Euratom Commission. It was thought that in both cases Euratom had no objection to these particular amendments since it did not increase the total ceiling of materials which the countries could acquire. I think that it can be recognized that this is a case of gradually developing a working relationship between Euratom and its constituent members. As time goes by we will perhaps have no further amendments to the individual bilaterals.

Representative PRICE. Euratom has no objection to it. What is our position? Why is it helpful for us to take this route rather than having to go through Euratom?

Mr. WELLS. I think I state the policy of our Government accurately when I say that we prefer them to go through Euratom. In

these cases both France and Germany strongly preferred that they be done bilaterally and, since Euratom did not object, our Government acceded to the respective wishes of the respective governments.

Representative PRICE. Will this permit France and Germany to manufacture power reactors utilizing U.S.-furnished fuel to a third company in competition with U.S. manufacturers?

Mr. WELLS. The ceiling of the quantity of materials is some limitation on the ability of France and Germany to fabricate fuel elements for power reactors, but as far as the principle is concerned, sir, this does enable these countries to fabricate fuel elements for powerplants located outside the United States.

The justification for this is that on balance and having given a considerable amount of study to this in Government and in consultation with that segment of private industry which is directly concerned with this, it has been concluded that it is in the U.S. interest to broaden as far as possible the potential market for U^{235} and permit reactors using this material to be built even though the fuel elements and the components may be fabricated in a country other than the United States.

Representative PRICE. Are there any questions?

Representative HOSMER. With respect to the 100 kilograms of U^{235} , 90 percent enriched where agreement will permit transfer to France, you mention there is a 3-year experimental program. What happens to the 100 kilograms at the expiration of the 3-year program?

Mr. WELLS. I am advised by one of my colleagues, Mr. Hosmer, that any of this material which is not consumed will be used in research reactors in France, all strictly for peaceful purposes as required by the agreement.

Representative HOSMER. This is for a specific criticality experiment that will last for approximately an estimated 3 years. You say at the expiration of that 3 years that the 90-percent-enriched uranium can be taken out of this experiment and utilized elsewhere as the French see fit for such other purpose as they may desire on the assurance that it is going to go into some peaceful experiment.

Mr. WELLS. The material is being sold, Mr. Hosmer, to France, and it is being sold for the purpose of the criticality experiment. When that experiment is completed then there is the question of what happens to it: The French are obligated to use it only for peaceful purposes. I do not have immediately in my mind the specific language of the provision relating to that question.

Mr. BENGELSDORF. I think the point is, Mr. Hosmer, that this amendment contains permissive language that will permit the material in the first instance to go for this purpose, but in the balance of the existing agreement there is already included permissive language that will permit France to retain the material for the other uses they have in mind.

The initial use here would be for the criticality experiments and at the end of that program it would be used in a series of reactors that fall within the scope of the agreement.

Representative HOSMER. What provisions are there to assure ourselves that such use of the material is actually being made?

Mr. WELLS. We have, Mr. Hosmer, throughout this agreement, the customary rights of inspection and safeguards which would enable

us to visit these installations and ascertain that the materials are being used for the specified peaceful purpose.

Representative HOSMER. Have we transferred or arranged to transfer or agreed to transfer 90-percent-enriched U^{235} of that quantity to any other country?

Mr. WELLS. No, sir; I believe this is the only instance in which this much material is being transferred.

Of course, it is being done because this criticality experiment which is under way is an important one. It bids fair to make a substantial contribution of knowledge to the peaceful uses of atomic energy and our technical people are very happy to see this experiment done. We are doing it, as I say, under safeguards which will enable us to be assured that it will be used only for peaceful purposes.

Representative HOSMER. Mr. Bengelsdorf mentioned some follow-on experiments that are in contemplation. What are those?

Mr. BENGELSDORF. These are research reactors that constitute part of the French civil program. These are reactors that require for their effective operation the use of 90 percent material.

The existing agreement with France permits 90 percent material to go to France for research reactors provided the reactor does not operate with a core load in excess of 8 kilograms, so we already anticipated that 90 percent material could go to France, in the first instance, for such purposes. What is contemplated here is that this 90 percent material will be used in reactors of this kind after the criticality program is complete.

Representative HOSMER. In other words, it is going to be broken down into lots, some dozen lots of not more than 8 kilograms each for small research reactors.

Mr. BENGELSDORF. Yes, sir.

Representative HOSMER. How is it going to be cleaned up for this use?

Mr. BENGELSDORF. I don't believe that the material itself will be substantially contaminated. The French have a capability to fabricate the elements themselves and, in fact, we already are transferring UF-6 to France for fabrication purposes. Accordingly, I believe they will have the technical capacity to take this material and put it in the requisite form for the research reactor involved.

Representative HOSMER. What does this establish by way of a precedent for any one who wants to come in and haul away 90 percent of enriched U^{235} ?

Mr. WELLS. The Commission is very conscious of the importance of safeguarding the material enriched up to this degree. We can assure you that materials in this quantity of this enrichment will not be transferred except when the purpose seems to be an exceedingly good one and when we feel that the safeguard and our relationships with the other Government are such that we are justified in letting the material go. This was given a fairly hard look.

As I say, this experiment is of interest to our technical people. It is all in the open. Our people will be there as often as is deemed necessary. So I think I can say that it does not establish any precedent except in those cases where the circumstances are as they are here. This will be very seldom.

Representative HOSMER. What will this criticality experiment produce by way of information or knowledge that the experiments already conducted and in the process of being conducted by the United States will not supply?

Mr. WELLS. If I may I would like to call on my colleague, Mr. Vander Weyden, to answer that.

Mr. VANDER WEYDEN. I think part of the requirement for quantities of the order of 100 kilograms is based on the degree of sophistication of the French program. For example, they are mounting a very large fast-reactor program. We have an excellent exchange of information with them. In fact, we had a team over there last month.

As you know, we had for many years a program of cooperation with fast reactors with England. This has been broadened to include France and they have some of the best facilities in the world for the development of components for fast reactors and this is part of a very closely coordinated program of cooperation and I think whenever you carry out criticality experiments either here or in England or in France, you are talking about orders of 100 kilograms of enriched uranium or plutonium.

Representative HOSMER. Assuming the experiments are fruitful and produce the desired information, I assume it would lead to the construction of some kind of reactor requiring large quantities of highly enriched uranium.

Mr. VANDER WEYDEN. It is more likely that the large reactors will use plutonium which they will presumably produce themselves. In this country we started off our experiments using highly enriched U^{235} but this was only to gather the information which will make it possible to build plutonium fast reactors so I think the U^{235} is a mechanism to get started.

Representative PRICE. You may proceed, Mr. Wells.

Mr. WELLS. Thank you, Mr. Chairman.

Representative HOSMER. Since these agreements do expire within the next month or two, do we have any problems on any of them with respect to waiver of the waiting period?

Mr. WELLS. We will have, sir, with respect to the agreement with Israel. The Israeli agreement expires on July 11. Unfortunately we were not able to get the agreement and all of its formalities completed in order to submit it earlier to the committee than last Saturday, so the agreement expires on the 11th. We contemplate, sir, as much as we regret to have to do it, to ask the committee if you would be good enough to waive the 30-day waiting period on this arrangement.

Representative HOSMER. You say that it came up to us last Saturday?

Mr. WELLS. Yes, sir.

Representative HOSMER. That was the 25th. Is there anything between now and the 23d of August that is due to be shipped out or is there other reason why the agreement would have to be in full force and effect during that period?

Mr. WELLS. There will not be any materials shipped, Mr. Hosmer.

Representative HOSMER. Excuse me, July 23.

Mr. WELLS. There are no materials to be shipped. There are materials in the reactor, and I have not had an opportunity to study

this subject thoroughly in consultation with our legal counsel, but it is my understanding that if the material is in Israel at the time an agreement for cooperation is not in effect, there is a technical illegality. Obviously if your committee does not take exception to the amendment and it is just a matter of the 30 days running, it is not a matter of substance. I think it is the better practice if the committee would exercise its authority under the Atomic Energy Act by waiving this period to make the formalities complete.

Representative HOSMER. Rights which have accrued by force of the agreement do not expire by reason of the expiration of the agreement itself, do they?

Mr. WELLS. With respect to material itself, I think the Atomic Energy Act provides that no materials may be distributed except in agreement for cooperation. Then if that agreement for cooperation expires, the implication is that the materials should be returned. But as I say, I have not studied this in detail, Mr. Hosmer. It is possible that it might be concluded, in the case of a mere extension where there were no new transactions to take place, that there is no need to request a waiver.

Mr. TOLL. This is not a black and white situation because the extension has been executed. The only thing that is lacking is that the law says that it shall not become effective until after the 30-day period before the Joint Committee.

Mr. WELLS. That is right. This is not a case of substance. This is not a case where somebody would be doing something that was wrong. It would be a case of somebody doing something that had some question with respect to the legality.

Representative PRICE. In section 4 of your statement you say in each case, as well as in the case of Argentina, the United States in line with existing policy suggested to the other government that fuel and safeguard arrangements be developed through the IAEA which would permit existing bilateral arrangements to lapse, but in each case the country replied to the effect that they desired to have the bilateral agreements extended at this time.

Will not other countries always prefer to receive fuel under bilateral agreements unless the United States insists that the IAEA be utilized?

Mr. WELLS. Mr. Price, I must say we have not had too much luck to date in transferring the agreements to the Agency, but we have had some. Pakistan, for example, has agreed that their material should now come from the Agency.

Representative PRICE. Is that the only one that we have that decided to go through IAEA?

Mr. WELLS. We have also Finland. Finland has made an arrangement with the Agency. There has been one other, and that is Yugoslavia. In addition to that, recently the new Republic of Congo has decided that its material should come through the Agency.

In addition to that, the Japanese have agreed that their safeguards could be turned over to the Agency. I believe to date that is the run-down on the countries that are working with us through the Agency.

Representative PRICE. Mr. Ramey has a question.

Mr. RAMEY. Has India given any indication of interest of doing it through the IAEA? This was one of the original ideas, I guess, of having the IAEA. It was to have a place to deal with and they did not want to deal directly with us.

Mr. WELLS. I am a little bit at a loss to know how to answer that, Mr. Ramey, because the Indian Government's position on this point is unclear to me.

Let me put it this way: As of now, I could not tell you that the Indian Government would like to go through the Agency. There is a question mark in my mind.

Mr. TOLL. You do have the precedent of the Indian Government receiving some uranium from Canada, I believe, on a bilateral agreement rather than going through the Agency.

Mr. WELLS. Yes.

Representative PRICE. The Joint Committee tentatively plans to hold a hearing some time in July on the IAEA and the report prepared by the Cleveland committee.

Do you have any preliminary comments to make on this report at this time?

Mr. WELLS. Mr. Chairman, I do not think that I do.

As I mention in the statement, these particular amendments have been negotiated with the principle in mind which is expressed in the Smythe report: that insofar as possible the countries should be encouraged to go to the Agency.

Mr. Chairman, the Smythe report recognizes it may not always be possible and that is the case.

Representative PRICE. Would you give us the allocation under each agreement and how much material has actually been transferred?

Mr. WELLS. Yes, sir; I believe I have the figures here.

Representative PRICE. And the terms for payment?

Mr. WELLS. In the case Brazil, there is a ceiling of 16 kilograms of U^{235} . There have been actual transfers of 13 kilograms of U^{235} . It is my recollection that this has been done under the policy of leasing materials for the research reactors.

In the case of the Republic of China, the ceiling is 6 kilograms of U^{235} , and 100 grams of U^{235} , 10 grams of U^{233} and 250 grams and 10 grams of plutonium. The 250 grams of plutonium is in the form of foils and sources.

Mr. Chairman, may I say these latter small quantities of these special materials are sort of stereotyped. They are boilerplate. If you would like to save time I will not read those hereafter.

Representative PRICE. You may submit them for the record.

Do we have any late information on the type of reactor being constructed in the desert by Israel?

Mr. WELLS. We have a bilateral with Israel which calls for us to supply material for a small research reactor. We are in close touch with it. Under our inspection rights our representatives visited it a few months ago.

We are not contributing to the large reactor, so I have no up-to-date information on that reactor. We probably could supply something to you for the record on that, Mr. Chairman.

Representative PRICE. But the one in the Negeb Desert is being built strictly for peaceful purposes.

Mr. WELLS. I am not sure that the reactor we are commenting on is in the Negeb Desert.

Representative PRICE. Which is the one where you said you had inspection people there?

Mr. WELLS. That is in Tel Aviv.

Representative PRICE. My original question was directed to the one in the Negeb Desert.

Mr. WELLS. That might be the one I know as the Dimona reactor. That is being built by Israel in cooperation with another government and we do not participate in the construction of that.

Representative PRICE. In cooperation with which government?

Mr. WELLS. I believe it is the Government of France.

Representative PRICE. Have any of our people visited there?

Mr. WELLS. I am not sure of that, Mr. Chairman. In view of the nature of this question, may I submit to you a report on this matter?

Representative PRICE. Yes, I wish you would.

You may proceed.

Mr. WELLS. The Argentina Agreement: The agreement with Argentina supersedes the existing agreement and is for a 2-year period. The existing agreement with Argentina also is due to expire this summer.

The reason this is superseding is because there were a number of formal amendments necessary to bring the Argentina Agreement up to date and it was simpler to make a new agreement. It also has a few new provisions which I will outline.

4. Amendments to agreements with Brazil, Republic of China, Greece, Israel, Portugal, and Thailand: The amendments with Brazil, Republic of China, Greece, Israel, Portugal, and Thailand are, for the most part, identical and provide for a 2-year extension of the agreements. All of these agreements, except the one with Thailand, are due to expire within the next month or two. The purpose of these extensions is to assure each of the other governments of a continuity in its existing fuel supply for reactors already received from the United States. In each case, as well as in the case of Argentina, the United States, in line with existing policy, suggested to the other government that fuel and safeguard arrangements be developed with the International Atomic Energy Agency (IAEA) that would permit the existing bilateral arrangements to lapse. Each country, however, replied that it desired to have its bilateral agreement extended at this time. In several instances, the countries expressed an interest in the principle of receiving materials through the Agency but had doubts that the necessary negotiations with the Agency could be concluded in time. Several indicated they would give further study to the matter of satisfying requirements through the Agency. Accordingly, upon the recommendation of the Department of State, it was decided to extend the agreement in each instance in line with our policy to encourage but not require cooperating countries to work through the IAEA wherever practicable.

Existing bilateral supply contracts can, of course, be converted to an Agency contract whenever another party agrees, and cooperating countries can commence satisfying their fuel requirements through the Agency at any time they desire. We plan, in this connection, to continue to urge the other countries involved to draw upon the Agency's resources to an increasing extent and to place the reactors and fuel they have received bilaterally under IAEA safeguards, where applicable Agency safeguards have been established. New language has been included in order to facilitate such administration of safeguards by the IAEA over certain materials and equipment transferred under the agreements.

As the committee is aware, on May 19 an advisory committee headed by Dr. Henry deWolf Smyth presented a report to Mr. Harland Cleveland assessing U.S. policy toward the IAEA. This report is still being studied by the Department of State and the Commission. The report endorses the current U.S. policy of encouraging cooperating countries to work through the IAEA to the maximum extent practicable in satisfying their requirements for materials while recognizing that such arrangements are dependent upon mutual agreement of the parties.

In addition to extending the term, the amendments to the Brazilian and Portuguese also will update the "research materials" articles of these agreements to bring them into line with other similar agreements (specifically, each agreement, as amended, will permit the transfer of a total of 100 grams of contained U^{235} , 10 grams of U^{233} , 250 grams of plutonium in the form of fabricated foils and sources, and 10 grams of plutonium in other forms for use in defined research projects).

5. Argentine Agreement: The agreement with Argentina supersedes the existing agreement and is for a 2-year period. The existing agreement with Argentina also is due to expire this summer. The new agreement provides for the sale or lease, as may be agreed, of a net amount of 65 kilograms of U^{235} . To accommodate the projects outlined below, the agreement provides that all or a portion of the material may, in the Commission's discretion, be enriched up to 90 percent in U^{235} for fueling research reactors, materials testing reactors, reactor experiments, and power and demonstration power reactors, each having a maximum core loading of 8 kilograms of U^{235} . Existing agreements have similar provisions permitting the distribution of highly enriched fuel for research and materials testing reactors and reactor experiments. Argentina plans to fabricate this material into highly enriched fuel elements for use in two research reactors and two 150-kilowatt tank-type compact power reactors, each of which will require highly enriched fuel. According to Argentine plans, the first of these compact reactors will be constructed in Buenos Aires and will serve as a prototype for the second. The second reactor would be placed at the Argentine Naval Base in the Antarctic to serve as a power source.

Inasmuch as it is the existing position of the United States not to recognize claims of territorial sovereignty in Antarctica, the Department of State and the Argentine Embassy exchanged notes, copies of which have been made available to the committee, at the time the agreement was executed which stated that nothing in the agreement bears upon the traditional position of each government with respect to claims of territorial sovereignty in Antarctica. The U.S. note also states that the requirements of articles VII and X of the agreement, relating to jurisdiction, will be satisfied as long as the Argentine Government retains exclusive custody and control of the materials, including equipment and devices, in Antarctica. The Argentine's note states that they have taken note of our view with respect to the requirements of articles VII and X relating to jurisdiction. The Department of State has advised us that this exchange of notes provides a satisfactory resolution of the question of jurisdiction in the Antarctic.

Representative PRICE. What will be the safeguard arrangements for the Argentine and Antarctica reactor?

Mr. WELLS. Similar to the ones that were built in Argentina proper.

Representative PRICE. Would this type of a project be done through the International Agency?

Mr. WELLS. It could have been done, Mr. Price. As a matter of fact, we did more than suggest in this case. We urged Argentina to consider that possibility. They strongly preferred not to do it at this time; although the chairman of the Argentine Atomic Energy Commission indicated that in the future this project might be transferred to the Agency.

6. South Africa Amendment: The South African amendment is designed to permit South Africa to lease (since the existing agreement provides only for sale) U^{235} for use in a research and materials testing reactor now under construction by an American firm. The lease of fuel for such reactors, as contrasted with power reactors for which material is sold only, is in conformance with Commission policy and is provided for in nearly all agreements for cooperation. In addition, the amendment contains an updated fuel article which will permit the transfer of 90 percent enriched fuel for research reactors, reactor experiments, as well as materials testing reactors. As in the case of other countries just mentioned, South Africa was urged to obtain materials affected by the amendment through the IAEA, but preferred, instead, to conclude the amendment. A provision to facilitate administration of safeguards by the IAEA is included in the amendment.

Representative PRICE. How much material is involved in the South Africa project?

Mr. WELLS. There is no change in the agreement by this amendment. The ceiling under the existing agreement is 500 kilograms of U^{235} and those small quantities of special materials that I mentioned earlier. To date there have been no actual transfers to South Africa.

7. Other contemplated amendments: In conclusion, we should like, for the Joint Committee's convenience, to outline at this time the provisions of two additional amendments, to the West Berlin and Swedish Agreements, which we expect to submit to the committee in the very near future.

The proposed amendment to our agreement with the Federal Republic of Germany on behalf of Berlin provides for a 5-year extension of the agreement which is due to expire on July 31. The amendment also will update the "research materials" article to bring the agreement in line with other similar agreements. Specifically, the amendment will permit the transfer of 250 grams of plutonium in the form of fabricated foils and sources in addition to the transfer of 10 grams of plutonium permitted under the existing agreement. A further minor modification is contemplated in the West Berlin Agreement, upon the request of the German authorities, to permit the reprocessing of any source or special nuclear material received from the United States in either Commission facilities or facilities acceptable to the Commission. As noted above, such a provision is routinely included in our comprehensive agreements, including that with Germany, but had not heretofore been included in research agreements for cooperation.

It is contemplated that the amendment to the Swedish agreement will contain a provision, similar to that in the French and German amendments, which will permit the transfer of special nuclear ma-

terials to Sweden for conversion or fabrication services, or both, and subsequent transfer to another nation, or group of nations, with which the United States has an appropriate agreement for cooperation. As a related change, the net limitation in the agreement is being raised from 200 to 400 kilograms. Sweden is interested in fabricating enriched fuel elements for use in several projects on which bids will be required in the next several months. The limit of 200 kilograms of U^{235} in the existing Swedish agreement was designed to cover the fuel requirements for only research and test reactors in Sweden and does not provide the leeway to cover the fabrication requirements even on an interim basis. The increased amounts provided are designed to satisfy these more pressing requirements. I would like to add that we have received a request from the Swedish Government to provide sizable quantities of U^{235} for their anticipated nuclear power program. Agreement was reached that these needs would not be covered in a bilateral agreement at this time to enable both of us to explore the extent to which Sweden may be able to satisfy such needs through the IAEA.

That concludes my statement, Mr. Chairman.

Representative PRICE. Mr. Wells, at one time there was some discussion of a power reactor being constructed in West Berlin. Has there been a recent discussion of such a project?

Mr. WELLS. Not to my knowledge, Mr. Price.

Representative PRICE. Why would the agreement with West Berlin be extended to 5 years rather than 2 years?

Mr. WELLS. This came about as a result of the peculiar situation that the city of West Berlin finds itself in. It was thought that it was desirable to make this agreement for 5 years rather than for a shorter period. Some of my colleagues from the Department of State might wish to comment on that. I think it had no great significance, Mr. Chairman, except for the fact that given the circumstances there it was thought that making a 2-year agreement might be misconstrued. I must say that I personally heartily endorse the notion of it being a 5-year agreement instead of a 2-year agreement.

Representative PRICE. What is the situation relative to West Berlin and West Germany in membership in the IAEA? Is West Berlin considered to be a member of the international agency?

Mr. WELLS. No, sir; the city of West Berlin has a peculiar status, and I am afraid I am not qualified to describe it in detail but matters pertaining to external relations are handled by the Federal Republic of Germany. The city of West Berlin and its nuclear activities are under the control of the Allied Commandant, the French, the United Kingdom, and the United States. The city of West Berlin is not a nation in the definition of a nation that would permit it to join the IAEA.

Representative PRICE. You mention the anticipated nuclear power program for Sweden. Is that an extensive program?

Mr. WELLS. It may very well be, Mr. Chairman. Sweden is very much interested in developing a substantial program looking toward a great deal of their electricity coming from nuclear reactors.

Representative PRICE. The new director general of the IAEA is a Swede. Do you think they will go through the IAEA?

Mr. WELLS. We would think it would be very appropriate that they should.

Representative HOSMER. This raises the amount in the Swedish agreement from 200 to 400 kilograms of U^{235} . From your statement I gather that that will be used in research reactors only or will it go in to power reactors?

Mr. WELLS. It might go to power reactors. It is not specifically limited to research agreements, but as I understand it, given the requirements in Sweden itself, there would not be too much material left over, and I doubt that there is enough here—

Representative HOSMER. Requirements in Sweden for what?

Mr. WELLS. For their own domestic use.

Representative HOSMER. With respect to power or research reactors?

Mr. WELLS. Just research reactors at the present time.

As I understand it, there is probably a minimum amount of U^{235} that would be required for a large power reactor, some 350 kilograms for first core. They might be able to supply a core for a small power reactor.

Representative HOSMER. If they wanted to spike a core with something, I suppose?

Mr. WELLS. Yes, sir.

Representative HOSMER. Is there any limitation on the degree of enrichment of this 400 kilograms?

Mr. WELLS. This would also be up to the 90 percent. Is that the limitation?

Mr. KRATZER. This amendment contains a limitation of 20 percent except for materials testing reactors, research reactors, and reactor experiments and that is not affected by any of the amendments which we contemplate at this time.

Representative HOSMER. It gives them a pretty high degree of flexibility, does it not?

Mr. KRATZER. It excludes power reactors in effect.

Representative HOSMER. As to the enriched uranium they can receive for fabrication and reexport, are there any limitations as to quantity?

Mr. WELLS. The quantity in Sweden—

Representative HOSMER. Other than the practical ones.

Mr. WELLS. Within the confines of the Swedish Government they can never have more than 400 kilograms of U^{235} and in computing that 400 they have to take in account the material they have for their own purpose as well as what they are fabricating for someone else, and that is a very real limitation, Mr. Hosmer.

Representative HOSMER. Is that going to keep them out of some of these bids for supplying fuel elements to other countries?

Mr. WELLS. They will be able to bid for some, but this is a fairly limiting quantity.

Representative HOSMER. Why should you treat the Swedes any different than the Canadians and some of these other people?

Mr. WELLS. In this case, we were trying to encourage Sweden to go to the IAEA for this material. The Swedish Government asked us to supply them this quantity as an interim measure.

I must say that most of these things are regarded by us as an interim nature and we hope as the years pass we will have more success in going to the IAEA.

Representative HOSMER. I am not sold on the IAEA proposition nor am I sold on making the Swedes go that route without a similar

position on other countries with which you deal. Why do you treat the Swedes differently?

Representative PRICE. I think you stated that you tried to encourage all of them to go to the IAEA.

Mr. WELLS. That is right.

Representative HOSMER. Here they have a bargain which you do not have with the Argentines and some of these other people with whom you are making agreements.

Mr. WELLS. Since I value our relationship with Sweden very, very highly and since this is an open session, I want to be quite clear in my statements. I am not aware of any discrimination against them, Mr. Hosmer. The Argentine agreement is limited to 65 kilograms and Sweden has 400. In both cases, since I was involved in it, I think I can say we exerted the same amount of pressure, pressure in the sense of friendly persuasion. That is all the pressure we have exacted at this time.

It is true that with respect to Sweden's request for large quantity of materials for their long-range power program we did urge them to delay this for at least another year while further consideration was given to the possibilities of their going to the IAEA. Had Argentina or any other government asked us for similar quantities I assure you the same things would have been said.

Mr. TOLL. You mentioned the Republic of Congo. I think there is a reactor there that got some fuel from the United States under an agreement with the Government of Belgium. What is the legal situation with respect to that material at the present time?

Mr. WELLS. The Government of Belgium and the Republic of Congo have agreed that this arrangement between them, the arrangement affecting this reactor, should be turned over to the IAEA so there is now in being, as I understand it, a valid arrangement through the agency for the Congo to hold this material subject to agency conditions. We have recently agreed by means of a contract to supply to the Government of the Congo a small additional quantity of material for the reactor and this material will go through the IAEA just like the material went to Finland, Yugoslavia, and will go to Pakistan.

I am happy to report that the anomaly of the Congo situation has now been ironed out.

Mr. TOLL. Is the original material then charged to the amount allocated under the agreement for cooperation with IAEA? I am referring to the amount that was originally transferred under the Belgium agreement. That is now included in the allocation applicable to the agency.

Mr. WELLS. I do not know of personal knowledge, but I am sure it would be, Mr. Toll. I can check into that and let you know.

(The information requested follows:)

ATOMIC ENERGY COMMISSION,
Washington, D.C., June 25, 1962.

Mr. JAMES T. RAMEY,
Executive Director,
Joint Committee on Atomic Energy,
Congress of the United States.

DEAR Mr. RAMEY: This letter is to inform you and the Joint Committee about the proposed special nuclear material supply contract between the Commission, the International Atomic Energy Agency and the Government of the Congo (Léopoldville).

This contract provides for the sale by the Commission to the IAEA and by the IAEA to the Congo of up to 1,000 grams of 20-percent-enriched uranium contained in five supplementary fuel elements for the 50-kilowatt Triga Mark I research reactor and up to 5.5 grams of 90-percent enriched uranium contained in three fission counters for the reactor. This transaction will take place under the agreement for cooperation of May 11, 1959, between the United States and the IAEA, and under a project agreement between the IAEA and the Congo which provides for assistance to the Congo in continuing the research reactor project originally established by the Government of Belgium, with assistance from the United States, at the Louvanium University in Léopoldville.

The supply contract was recently approved by the IAEA's Board of Governors with our support. Director General Eklund requested that it be signed in Vienna at the earliest possible time after the Board's approval. In order to meet this request, and in accordance with the recommendation of Dr. H. D. Smyth, U.S. Representative to the IAEA, Dr. Smyth and (in his absence) Mr. William Cargo, Deputy U.S. Representative, have been authorized to sign the contract on behalf of the Commission.

Signature of the project agreement will bring the Louvanium reactor facility under IAEA safeguards. Thus far, the physical security of the reactor has been maintained by United Nations and Congolese guards in Léopoldville.

Sincerely yours,

A. A. WELLS,

Director, Division of International Affairs.

Mr. RAMEY. I think all during the difficulties they had in the Congo this reactor and the university group were able to operate, were they not?

Mr. WELLS. It was a bright spot, Mr. Ramey, and I might say of course we were concerned. We kept in close touch with it but the reactor that was operated by the University of Louvanium was never bothered and apparently none of its work was ever interfered with. I am very glad to see that the agency has been able to take care of this kind of a situation and ease some of the tensions.

Representative PRICE. That will conclude the hearing for this afternoon.

Mr. GRAHAM. May I make just one observation?

I have been handed a note by Mr. Naiden who has asked me to express his appreciation to the committee and to Mr. Ramey for the kind words which were expressed with respect to his services as General Counsel of the AEC.

Representative PRICE. The Chair would like to express the feeling that every member of the committee subscribes to the statement that Mr. Ramey made on behalf of the staff in reference to Mr. Naiden's leaving the Commission.

The committee will stand adjourned.

(Whereupon, at 5:05 p.m., Monday, June 25, 1962, the committee was recessed subject to call.)



APPENDIXES

APPENDIX 1

[H. Rept. 1956, 87th Cong., 2d sess.]

PROPOSED AGREEMENT FOR COOPERATION FOR MUTUAL DEFENSE PURPOSES BETWEEN THE GOVERNMENT OF THE UNITED STATES AND THE GOVERNMENT OF BELGIUM

This is a report on a proposed agreement for cooperation for mutual defense purposes between the Government of the United States and the Government of Belgium submitted to the Congress by the President of the United States on May 31, 1962, and referred to the Joint Committee on Atomic Energy, in accordance with subsection 123d. of the Atomic Energy Act of 1954, as amended by Public Law 85-479.

Subsection 123d. of the Atomic Energy Act of 1954, as amended, provides that no cooperation with any nation or regional defense organization for transfer of military atomic energy information or material may take place unless the proposed agreement for cooperation, together with the approval and determination of the President, has been submitted to the Congress and referred to the Joint Committee for a period of 60 days. Any such proposed agreement for cooperation shall not become effective if during the 60-day period the Congress passes a concurrent resolution opposing it.

In accordance with subsection 123d. of the Atomic Energy Act of 1954, as amended, the proposed agreement with the Government of Belgium will become effective after midnight of July 30, 1962, if the Congress does not disapprove it by concurrent resolution prior to that date. If either House adjourns for more than 3 days, this date will be extended accordingly.

The Joint Committee on Atomic Energy having reviewed the proposed agreement and having received testimony in executive session and in an open public hearing from representatives of the Department of State, the Department of Defense, and the Atomic Energy Commission has no objection to its going into effect.

The Joint Committee on Atomic Energy on June 28, 1962, adopted this report which is being made by the Joint Committee in accordance and in compliance with the provisions of section 202 of the Atomic Energy Act of 1954, as amended.

EXECUTIVE HEARINGS

In order that the Joint Committee might fully explore all details of the cooperation contemplated under the proposed agreement including specific classified material and information under consideration, the Joint Committee held an executive session hearing the morning of June 25, 1962.

The following listed witnesses appeared before the Joint Committee in executive session to testify or participate in the hearing:

Department of State:

- U. Alexis Johnson, Deputy Under Secretary for Political Affairs.
- J. Robert Schaetzel, Deputy Assistant Secretary for Atlantic Affairs.
- Dana Orwick, Special Assistant for Atomic Energy and Outer Space.
- Alan G. James, Officer in Charge of Special Political Military Problems in the Office of Atlantic Political Military Affairs.

Department of Defense:

- Hon. Gerald W. Johnson, Assistant Secretary of Defense for Atomic Energy.
- Col. Philip L. Hooper, Military Assistant to Dr. Johnson.
- Robert Kubal, Office of International Security Affairs of OSD.

Atomic Energy Commission :

Hon. John S. Graham, Commissioner.
 Dwight A. Ink, Assistant General Manager.
 A. A. Wells, Director, Division of International Affairs.
 Myron B. Kratzer, Deputy Director, Division of International Affairs.
 Franklin N. Parks, Office of the General Counsel.
 Edwin E. Spingarn, Office of the General Counsel.
 Capt. D. Klein, Division of Military Application.
 Adm. John A. Waters, Jr., Director, Division of Security.
 William T. Riley, Assistant Director for Physical Security.
 Larry O'Donnell, Office of International Affairs.
 Richard X. Donovan, congressional liaison.

OPEN HEARING

In addition to the executive hearing, the Joint Committee held an open hearing on the afternoon of June 25, 1962, at which representatives of the Department of State, Department of Defense, and the Atomic Energy Commission testified in public and discussed, within the bounds of security, the nature of the information and material to be transmitted under the agreement.

Previously, on June 14, 1962, a press statement was issued by the chairman of the Subcommittee on Agreements for Cooperation of the Joint Committee announcing the open hearing and giving the time and place.

In preparation for the open hearing and to inform the public and Members of Congress as to the details of the proposed agreement the chairman of the Subcommittee on Agreements for Cooperation, on June 20, 1962, inserted in the Congressional Record the text of the proposed agreement, together with the accompanying recommendations of the President, the Department of State, Department of Defense, and the Atomic Energy Commission. (Congressional Record for June 20, 1962, pp. 10333-10335.)

On June 25, 1962, an open hearing was held in room AE-1, U.S. Capitol Building, at which the following witnesses appeared and testified :

Department of State : J. Robert Schaetzel, Deputy Assistant Secretary for Atlantic Affairs ; Howard Furnas, Deputy Science Adviser ; and Charles Thomas, Office of the Science Adviser.

Department of Defense : Col. Philip L. Hooper, Military Assistant to Assistant Secretary of Defense for Atomic Energy.

Atomic Energy Commission : John S. Graham, Commissioner ; A. A. Wells, Director, Division of International Affairs.

SUMMARY OF PROPOSED AGREEMENT WITH BELGIUM

This proposed agreement for cooperation with the Government of Belgium is similar to agreements previously entered into by the United States with the Governments of Turkey, Greece, the Netherlands, the Federal Republic of Germany, Italy, and France.

Under this agreement, subject to certain conditions, the United States and Belgium would be able to exchange classified information which is jointly determined to be necessary to the development of defense plans, the training of personnel in the employment of and defense against atomic weapons and other military applications of atomic energy and the development of delivery systems compatible with atomic weapons. The United States also would be able to transfer by sale, loan, or lease, nonnuclear parts of atomic weapon systems (as distinct from parts of atomic weapons) as jointly determined to be necessary for the purpose of improving the state of training and operational readiness of the Belgian armed forces.

The proposed agreement with Belgium does not permit the transfer of atomic weapons, parts of atomic weapons, or fissionable material for use in weapons. It also does not permit the communication of classified information that would make it possible for the receiving nation to design, develop, or fabricate an atomic weapon.

The proposed agreement specifically requires that communication of classified information and the transfer of nonnuclear parts of weapons systems by the United States would take place only when the United States determines that it will promote and will not constitute an unreasonable risk to its defense and security, and only when the Government of Belgium is participating with the

United States in an international arrangement for their mutual defense and security and making substantial and material contributions thereto. The proposed agreement would remain in force until terminated by agreement of both parties except that with respect to the communication of information or transfer of equipment either nation may terminate its cooperation on the expiration of the North Atlantic Treaty.

Classified information and equipment transferred are to be protected in accordance with security standards agreed to between the United States and the Government of Belgium. The recipient nation would not communicate to nor permit access to any classified information or equipment received under the agreement by other nations or international organizations unless so authorized by the originating nation.

Any inventions or discoveries resulting from possession of information communicated or revealed by equipment transferred shall be made available to the originating nation without charge or limitation of use.

COMMITTEE COMMENTS

The proposed agreement with Belgium is a permissive arrangement. The communication of information and the transfer of equipment stipulated in the agreement will take place only if the President determines that the specific transfer or communication will promote and will not constitute an unreasonable risk to the defense and security of the United States. Such determination must be made prior to each transfer or communication. The Joint Committee has been assured that it will be informed prior to any communication of information or transfer of equipment and of the determinations when made.

The nonnuclear parts of atomic weapons systems which would be permitted to be transferred under this proposed agreement would consist of such things as electrical and mechanical attachments and adaption kits that would make it possible for the Belgian weapon systems to be adaptable to atomic weapons. This type of equipment is not an integral part of atomic weapons.

The Joint Committee submits this report in accordance with section 202 of the Atomic Energy Act of 1954 to assist all Members of Congress to understand the nature and scope of the proposed agreement with the Government of Belgium.

There follows as an appendix the text of the proposed Agreement Between the Government of the United States of America and the Government of Belgium for Cooperation on the Uses of Atomic Energy for Mutual Defense Purposes and correspondence from the President, the Secretary of State, the Secretary of Defense, and the Chairman of the Atomic Energy Commission in support of the agreement.

APPENDIX

AGREEMENT BETWEEN THE GOVERNMENT OF THE UNITED STATES OF AMERICA AND THE GOVERNMENT OF BELGIUM FOR COOPERATION ON THE USES OF ATOMIC ENERGY FOR MUTUAL DEFENSE PURPOSES

The Government of the United States of America and the Government of Belgium,

Considering that they have concluded a Mutual Defense Assistance Agreement, pursuant to which each Government will make available to the other equipment, materials, services, or other military assistance in accordance with such terms and conditions as may be agreed;

Considering that their mutual security and defense require that they be prepared to meet the contingencies of atomic warfare;

Considering that they are participating together in an international arrangement pursuant to which they are making substantial and material contributions to their mutual defense and security;

Recognizing that their common defense and security will be advanced by the exchange of information concerning atomic energy and by the transfer of certain types of equipment;

Believing that such exchange and transfer can be undertaken without risk to the defense and security of either country; and

Taking into consideration the United States Atomic Energy Act of 1954, as amended, and all applicable statutes of Belgium, which were enacted or prepared with these purposes in mind;

Have agreed as follows:

ARTICLE I. GENERAL PROVISIONS

While the United States and Belgium are participating in an international arrangement for their mutual defense and security and making substantial and material contributions thereto, each Party will communicate to and exchange with the other Party information and transfer nonnuclear parts of atomic weapons systems involving Restricted Data to the other Party in accordance with the provisions of this Agreement, provided that the communicating or transferring Party determines that such cooperation will promote and will not constitute an unreasonable risk to its defense and security.

ARTICLE II. EXCHANGE OF INFORMATION

Each Party will communicate to or exchange with the other Party such classified information as is jointly determined to be necessary to—

- A. the development of defense plans;
- B. the training of personnel in the employment of and defense against atomic weapons and other military applications of atomic energy;
- C. the evaluation of the capabilities of potential enemies in the employment of atomic weapons and other military applications of atomic energy; and
- D. the development of delivery systems compatible with the atomic weapons which they carry.

ARTICLE III. TRANSFER OF NON-NUCLEAR PARTS OF ATOMIC WEAPONS SYSTEMS

The Government of the United States will transfer to the Government of Belgium, subject to terms and conditions to be agreed, non-nuclear parts of atomic weapons system involving Restricted Data as such parts are jointly determined to be necessary for the purpose of improving Belgium's state of training and operational readiness.

ARTICLE IV. CONDITIONS

A. Cooperation under this Agreement will be carried out by each of the Parties in accordance with its applicable laws.

B. Under this Agreement there will be no transfer by either Party of atomic weapons, non-nuclear parts of atomic weapons, or special nuclear materials.

C. The information communicated or exchanged, or non-nuclear parts of atomic weapons systems transferred, by either Party pursuant to this Agreement shall be used by the recipient Party exclusively for the preparation or implementation of defense plans in the mutual interests of the two countries.

D. Nothing in this Agreement shall preclude the communication or exchange of classified information which is transmissible under other arrangements between the Parties.

ARTICLE V. GUARANTEES

A. Classified information and non-nuclear parts of atomic weapons systems communicated or transferred pursuant to this Agreement shall be accorded full security protection under applicable security arrangements between the Parties and applicable national legislation and regulations of the Parties. In no case shall either Party maintain security standards for safeguarding classified information, and non-nuclear parts of atomic weapons systems, made available pursuant to this Agreement less restrictive than those set forth in the applicable security arrangements in effect on the date this Agreement comes into force.

B. Classified information communicated or exchanged pursuant to this Agreement will be made available through channels existing or hereafter agreed for the communication or exchange of such information between the Parties.

C. Classified information, communicated or exchanged, and any non-nuclear parts of atomic weapons systems transferred pursuant to this Agreement shall not be communicated, exchanged or transferred by the recipient Party or persons under its jurisdiction to any unauthorized persons or, except as provided in Article VI of this Agreement, beyond the jurisdiction of that Party. Each Party may stipulate the degree to which any of the information and non-nuclear parts of atomic weapons systems communicated, exchanged or transferred by it or persons under its jurisdiction pursuant to this Agreement may be disseminated or distributed; may specify the categories of persons who may have access to

such information or non-nuclear parts of atomic weapons systems; and may impose such other restrictions on the dissemination or distribution of such information or non-nuclear parts of atomic weapons systems as it deems necessary.

ARTICLE VI. DISSEMINATION

Nothing in this Agreement shall be interpreted or operate as a bar or restriction to consultation or cooperation in any field of defense by either Party with other nations or international organizations. Neither Party, however, shall so communicate classified information or transfer or permit access to or use of non-nuclear parts of atomic weapons systems made available by the other Party pursuant to this Agreement unless:

A. It is notified by the originating Party that all appropriate provisions and requirements of the originating Party's applicable laws, including authorization by competent bodies of the originating Party, have been complied with which would be necessary to authorize the originating Party directly so to communicate to, transfer to, permit access to or use by such other nation or international organization; and further that the originating Party authorizes the recipient Party so to communicate to, transfer to, permit access to or use by such other nation or international organization; or

B. The originating Party has informed the recipient Party that the originating Party has so communicated to, transferred to, permitted access to or use by such other nation or international organization.

ARTICLE VII. CLASSIFICATION POLICIES

Agreed classification policies shall be maintained with respect to all classified information and non-nuclear parts of atomic weapons systems communicated, exchanged or transferred under this Agreement.

ARTICLE VIII. RESPONSIBILITY FOR USE OF INFORMATION AND NON-NUCLEAR PARTS OF ATOMIC WEAPONS SYSTEMS

The application or use of any information (including design drawings and specifications) or non-nuclear parts of atomic weapons systems communicated, exchanged or transferred under this Agreement shall be the responsibility of the Party receiving it, and the other Party does not provide any indemnity or warranty with respect to such application or use.

ARTICLE IX. PATENTS

The recipient Party shall use the classified information communicated, or revealed by equipment transferred hereunder, for the purposes specified herein only. Any inventions or discoveries resulting from possession of such information on the part of the recipient Party or persons under its jurisdiction shall be made available to the other Party for all purposes without charge in accordance with such arrangements as may be agreed and shall be safeguarded in accordance with the provisions of Article V of this Agreement.

ARTICLE X. DEFINITIONS

For the purposes of this Agreement:

A. "Atomic weapon" means any device utilizing atomic energy, exclusive of the means for transporting or propelling the device (where such means is a separable and divisible part of the device), the principal purpose of which is for use as, or for development of, a weapon, a weapon prototype, or a weapon test device.

B. "Classified information" means information, data, materials, services, or any other matter with the security designation of "Confidential" or higher applied under the legislation or regulations of either the United States or Belgium, including that designated by the Government of the United States as "Restricted Data" or "Formerly Restricted Data" and that designated by the Government of Belgium as "Atomic".

C. "Non-nuclear parts of atomic weapons" means parts of atomic weapons which are specially designed for them and are not in general use in other end products and which are not made of, in whole or in part, special nuclear material; and "non-nuclear parts of atomic weapons systems involving Restricted Data"

means parts of atomic weapons systems, other than non-nuclear parts of atomic weapons, which contain or reveal atomic information and which are not made of, in whole or in part, special nuclear material.

D. As used in this Agreement, the term "atomic information" means:

1. So far as concerns information provided by the Government of the United States, information which is designated "Restricted Data" and "Formerly Restricted Data."

2. So far as concerns information provided by the Government of Belgium, information which is designated "Atomic".

ARTICLE XI. DURATION

This Agreement shall enter into force on the date on which each Government shall have received from the other Government written notification that it has complied with all legal requirements for the entry into force of this Agreement, and shall remain in force until terminated by agreement of both Parties except that either Party may terminate its cooperation under Articles II or III upon the expiration of the North Atlantic Treaty.

IN WITNESS WHEREOF, the undersigned, duly authorized, have signed this Agreement.

DONE at Brussels, in duplicate, in the English and French languages, both tests being equally authentic, this 17th day of May, 1962.

For the Government of the United States of America:

DOUGLAS MACARTHUR II.

For the Government of Belgium:

P. H. SPAAK.

To the Congress of the United States:

This Government has recently signed with the Government of Belgium an atomic cooperation agreement for mutual defense purposes. This agreement, which has been concluded pursuant to sections 91-c and 144-b of the Atomic Energy Act, is essentially the same as agreements we have concluded since 1959 with a number of other NATO countries. By providing for the exchange of information and nonnuclear materials the agreement with Belgium will enable us to cooperate in developing plans and training personnel so that Belgian NATO forces can effectively contribute with other NATO countries to the collective defense effort. The members of NATO have made clear that it is necessary for their common defense to maintain the most modern NATO forces, and that these forces must be capable of using nuclear weapons if necessary. Since it is well known that measures to build NATO military strength are designed solely for defense purposes, these measures should not be a cause of concern to other countries.

In general, NATO countries are proceeding simultaneously along two lines to provide for their necessary military strength: conventional forces are being strengthened, and an effective nuclear capability is being maintained. The conclusion of this agreement is consistent with these current policies and with the continuing Alliance purposes of collective defense.

I am forwarding a copy of the atomic cooperation agreement with Belgium to each House of the Congress, in accordance with the Atomic Energy Act of 1954, as amended. I am also forwarding a letter from the Secretary of State transmitting an authoritative text of the agreement, a copy of the joint communication by the Secretary of Defense and the Chairman of the Atomic Energy Commission recommending my approval of the agreement and a copy of the memorandum recording my affirmative response to their recommendation.

JOHN F. KENNEDY.

THE WHITE HOUSE, May 29, 1962.

MAY 18, 1962.

THE PRESIDENT,
The White House.

DEAR MR. PRESIDENT: I have the honor to lay before you with a view to its submission to the Congress, pursuant to the Atomic Energy Act of 1954, as amended, an authoritative copy of an Agreement Between the Government of the United States of America and the Government of Belgium for Cooperation on the Uses of Atomic Energy for Mutual Defense Purposes, which was signed at Brussels on May 17, 1962.

This agreement was signed on behalf of the United States pursuant to the authorization granted in your memorandum of March 23, 1962, to the Secretary of Defense and the Chairman of the Atomic Energy Commission, a copy of which was transmitted to the Department of State.

Faithfully yours,

DEAN RUSK.

MARCH 22, 1962.

THE PRESIDENT,
The White House.

DEAR MR. PRESIDENT: There is hereby submitted for your consideration and approval a proposed Agreement Between the Government of the United States of America and the Government of Belgium for Cooperation on the Uses of Atomic Energy for Mutual Defense Purposes.

The proposed agreement will permit, under the authority of sections 91c and 144b of the Atomic Energy Act of 1954, as amended, the transfer of classified information and certain equipment necessary for the purpose of improving the state of training and operational readiness of the armed forces of Belgium. The December 1957 NATO Heads of Government meeting established the concept of a stockpile of arms for the strengthening of NATO's defenses, and this present agreement is an important part of the implementation of this concept. The carrying out of this agreement should do much to advance our mutual defense interest, including the vital cause of strengthening the NATO defensive alliance, and will thereby aid materially in the defense of the United States.

Article II of the agreement provides for the transfer of classified information, including "Restricted Data" and "Formerly Restricted Data," necessary to the development of defense plans; the training of personnel in the employment of and the defense against atomic weapons and other military applications of atomic energy; the evaluation of the capability of potential enemies in the employment of atomic weapons and other military applications of atomic energy; and the development of delivery systems capable of carrying atomic weapons.

Article III of the agreement provides that the United States will transfer non-nuclear parts of atomic weapons systems involving restricted data (other than nonnuclear parts of atomic weapons) for the purpose of improving the state of training and operational readiness of the armed forces of Belgium. However, in view of section 91c of the Atomic Energy Act, the applicability of which is reflected in article IV of the agreement, no transfer can be made if it would contribute significantly to the recipient nation's atomic weapon design, development, or fabrication capability. It is not possible to determine at this time the types, quantities and conditions of transfer, whether by sale, lease, or loan, of those parts which it will become necessary to transfer for our mutual defense during the period of the agreement. Accordingly, under the terms and conditions of the agreement, it will be necessary to determine from time to time the types, quantities and conditions of transfer and such determination shall be submitted for your approval.

The agreement would remain in force until terminated by agreement of both parties, thus assuring continued protection for the information and equipment transferred in accordance with the provision of the agreement. However, cooperation for the transfer of information and equipment under articles II and III of the agreement may be discontinued by either party in the event of the termination of the North Atlantic Treaty.

In accordance with the provisions of sections 91c and 144b of the Atomic Energy Act of 1954, the agreement specifically provides in article I that all cooperation under the agreement will be undertaken only when the communicating or transferring party determines that such cooperation will promote and will not constitute an unreasonable risk to its defense and security. Article I of the agreement also provides, in accordance with the act, that all cooperation under the agreement will be undertaken only while the United States and Belgium are participating in an international arrangement for their mutual defense and security and making substantial and material contributions thereto. Cooperation under articles II and III of the agreement would be undertaken only when these conditions prevail.

Article IV of the agreement stipulates that the cooperation under the agreement will be carried out by each of the parties in accordance with its applicable laws. Article IV also makes clear that there will be no transfer under the agreement of atomic weapons, nonnuclear parts of atomic weapons or special nuclear material.

In addition to the foregoing provisions on the terms, conditions, duration, nature and scope of cooperation, the agreement provides that the parties will maintain agreed security safeguards and standards. The agreement also contains particular commitments that the recipient of any equipment or information that is obtained pursuant to the agreement will not transfer it to unauthorized persons and will not transfer it beyond the jurisdiction of the recipient party, except in limited circumstances specifically provided in the agreement.

Belgium is now participating with the United States in an international arrangement pursuant to which Belgium is making substantial and material contributions to the mutual defense and security. It is the view of the Department of Defense and the Atomic Energy Commission that this agreement is entirely in accord with the provisions of the Atomic Energy Act of 1954, as amended. It is the considered opinion of the Department of Defense and the Atomic Energy Commission that the performance of the proposed agreement will promote and will not constitute an unreasonable risk to the common defense and security of the United States.

Accordingly, it is recommended that you (a) approve the program for the transfer of nonnuclear parts of atomic weapon systems involving restricted data under the terms and conditions provided in this letter and the proposed agreement; however, types, quantities and conditions of transfer of such parts are subject to your later approval; (b) determine that the performance of this agreement will promote and will not constitute an unreasonable risk to the common defense and security of the United States; and (c) approve the proposed agreement and authorize its execution for the Government of the United States in a manner specified by the Secretary of State.

The Secretary of State concurs in the foregoing recommendations.

Sincerely,

ROSSELL L. GILPATRICK,
Deputy Secretary of Defense.

GLENN T. SEABORG,
Chairman, Atomic Energy Commission.

MEMORANDUM FOR THE SECRETARY OF DEFENSE; THE CHAIRMAN, ATOMIC ENERGY COMMISSION

MARCH 23, 1962.

In your joint letter to me of March 22, 1962, you recommended that I approve a proposed Agreement Between the Government of the United States of America and the Government of Belgium for Cooperation on the Uses of Atomic Energy for Mutual Defense Purposes.

Belgium is participating with the United States in an international arrangement pursuant to which it is making substantial and material contributions to the mutual defense and security. The proposed agreement will permit cooperation necessary to improve the state of training and operational readiness of the armed forces of Belgium, subject to provisions, conditions, guarantees, terms and special determinations, which are most appropriate in this important area of mutual assistance, in accordance with the agreement in principle reached in December 1957.

Having considered your joint recommendations and the cooperation provided for in the agreement, including security safeguards and other terms and conditions of the agreement, I hereby (1) approve the program for the transfer of nonnuclear parts of atomic weapon systems involving restricted data under the terms and conditions provided in your joint letter and the proposed agreement; however, types, quantities and conditions of transfer of such parts are subject to my further approval; (2) determine that the performance of this agreement will promote and will not constitute an unreasonable risk to the common defense and security of the United States; and (3) approve the proposed agreement and authorize its execution for the Government of the United States in a manner designated by the Secretary of State.

JOHN F. KENNEDY.

APPENDIX 2

AGREEMENT FOR COOPERATION BETWEEN THE GOVERNMENT OF THE UNITED STATES OF AMERICA AND THE GOVERNMENT OF THE ARGENTINE REPUBLIC CONCERNING CIVIL USES OF ATOMIC ENERGY

Whereas the Government of the United States of America and the Government of the Argentine Republic on July 29, 1955 signed an Agreement for Cooperation Concerning Civil Uses of Atomic Energy; and

Whereas such Agreement provides that it is the hope and expectation of the Parties that the initial Agreement for Cooperation would lead to consideration of further cooperation extending to the design, construction, and operation of power-producing reactors; and

Whereas the Government of the Argentine Republic has advised the Government of the United States of America of its desire to pursue a research and development program looking toward the realization of peaceful and humanitarian uses of atomic energy including the design, construction, and operation of power-producing reactors; and

Whereas the Government of the United States of America desires to cooperate with the Government of the Argentine Republic in such a program as hereinafter provided; and

Whereas the Parties desire that the Agreement for Cooperation signed on July 29, 1955, as amended, be superseded by this Agreement which includes the new areas of cooperation;

The Parties therefore agree as follows:

ARTICLE I

For the purpose of this Agreement:

(a) "Commission" means the United States Atomic Energy Commission or its duly authorized representatives.

(b) "Equipment and devices" and "equipment or device" means any instrument, apparatus, or facility and includes any facility, except an atomic weapon, capable of making use of or producing special nuclear material, and component parts thereof.

(c) "Person" means any individual, enterprise, corporation, partnership, firm, association, trust, estate, public or private institution, group, government agency, or government corporation, but does not include the Parties to this Agreement.

(d) "Reactor" means an apparatus, other than an atomic weapon, in which self-supporting fission chain reaction is maintained by utilizing uranium, plutonium, or thorium, or any combination of uranium, plutonium, or thorium.

(e) "Restricted Data" means all data concerning (1) design, manufacture, or utilization of atomic weapons; (2) the production of special nuclear materials; or (3) the use of special nuclear material in the production of energy, but shall not include data declassified or removed from the category of Restricted Data by the appropriate authority.

(f) "Atomic weapon" means any device utilizing atomic energy, exclusive of the means for transporting or propelling the device (where such means is a separable and divisible part of the device), the principal purpose of which is for use as, or for development of, a weapon, a weapon prototype, or a weapon test device.

(g) "Special nuclear material" means (1) plutonium, uranium enriched in the isotope 233 or in the isotope 235, and any other material which the Commission determines to be special nuclear material; or (2) any material artificially enriched by any of the foregoing.

(h) "Source material" means (1) uranium, thorium, or any other material which is determined by either Party to be source material; or (2) ores containing one or more of the foregoing materials, in such concentration as either Party may determine from time to time.

(i) "Parties" means the Government of the United States of America, including the United States Atomic Energy Commission on behalf of the Government of the United States of America, and the Government of the Argentine Republic. "Party" means one of the Parties.

ARTICLE II

A. Restricted Data shall not be communicated under this Agreement and no materials or equipment and devices shall be transferred and no services shall be furnished under this Agreement if the transfer of any such materials or equipment and devices or the furnishing of any such services involves the communication of Restricted Data.

B. Subject to the provisions of this Agreement, the availability of personnel and material, and the applicable laws, regulations, and license requirements in force in their respective countries, the Parties shall assist each other in the achievement of the use of atomic energy for peaceful purposes.

C. This Agreement shall not require the exchange of any information which the Parties are not permitted to communicate because the information is privately owned or has been received from another Government.

ARTICLE III

Subject to the provisions of Article II, unclassified information, including information in the specific fields set out below, shall be exchanged between the Commission and the Government of the Argentine Republic with respect to the application of atomic energy to peaceful uses, including research and development relating to such uses and problems of health and safety connected therewith:

(a) The development, design, construction, operation, and use of research, materials testing, experimental power, demonstration power, and power reactors, and reactor experiments;

(b) Health and safety problems related to the operation and use of research, materials testing, experimental power, and power reactors, and reactor experiments;

(c) The use of radioactive isotopes and radiation in physical and biological research, medical therapy, agriculture, and industry.

ARTICLE IV

The application or use of any information (including design drawings and specifications) and any material, and equipment and devices, exchanged or transferred between the Parties under this Agreement shall be the responsibility of the Party receiving it, and the other Party does not warrant the accuracy or completeness of such information and does not warrant the suitability of such information, materials, and equipment and devices for any particular use or application.

ARTICLE V

A. Research Materials

Materials of interest in connection with defined research projects related to the peaceful uses of atomic energy and under the limitations set forth in Article II, including source materials, special nuclear materials, by-product materials, other radioisotopes, and stable isotopes, will, under this Article, be sold or otherwise transferred to the Government of the Argentine Republic for research purposes other than fueling reactors and reactor experiments in such quantities and under such terms and conditions as may be agreed when such materials are not available commercially.

B. Research Facilities

Subject to the provisions of Article II, and under such terms and conditions as may be agreed, and to the extent as may be agreed, specialized research facilities and reactor materials testing facilities of the Parties shall be made available for mutual use consistent with the limits of space, facilities, and personnel conveniently available, when such facilities are not commercially available.

ARTICLE VI

It is contemplated that, as provided in this Article, private individuals and private organizations in either the United States of America or Argentina may deal directly with private individuals and private organizations in the other country. Accordingly, with respect to the subjects of agreed exchange of information as provided in Article III, persons under the jurisdiction of either the Government of the United States of America or the Government of the Argen-

tine Republic will be permitted to make arrangements to transfer and export materials, including equipment and devices, to, and to perform services for, the other Government and such persons under its jurisdiction as are authorized by the other Government to receive and possess such materials and utilize such services, subject to:

(a) The limitations in Article II;

(b) Applicable laws, regulations, and license requirements of the Government of the United States of America and the Government of the Argentine Republic.

ARTICLE VII

A. The Commission will sell or lease, as may be agreed, to the Government of the Argentine Republic, uranium enriched up to twenty percent (20%) in the isotope U-235, except as otherwise provided in paragraph C of this Article, in such quantities as may be agreed, in accordance with the terms, conditions, and delivery schedules set forth in contracts, for fueling defined research reactors, materials testing reactors, reactor experiments, and power and demonstration power reactors, which the Government of the Argentine Republic, in consultation with the Commission, decides to construct or authorizes private organizations to construct and which are constructed within or under the jurisdiction of Argentina and as required in experiments related thereto; provided, however, that the net amount of any uranium sold or leased under this Article during the period of this Agreement shall not at any time exceed sixty-five (65) kilograms of the isotope U-235 contained in such uranium. This net amount shall be the gross quantity of such contained U-235 in uranium sold or leased to the Government of the Argentine Republic during the period of this Agreement less the quantity of such contained U-235 in recoverable uranium which has been resold or otherwise returned to the Government of the United States of America during the period of this Agreement or transferred to any other nation or group of nations with the approval of the Government of the United States of America.

B. Within the limitations contained in paragraph A of this Article, the quantity of uranium enriched in the isotope U-235 transferred by the Commission under this Article and in the custody of the Government of the Argentine Republic shall not at any time be in excess of the quantity necessary for the full loading of each defined reactor project which the Government of the Argentine Republic or persons under its jurisdiction construct and fuel with uranium received from the United States of America, as provided herein, plus such additional quantity as, in the opinion of the Commission, is necessary to permit the efficient and continuous operation of such reactors or reactor experiments while replaced fuel is radioactively cooling, is in transit, or, subject to the provisions of paragraph E of this Article, is being reprocessed in Argentina, it being the intent of the Commission to make possible the maximum usefulness of the material so transferred.

C. The Commission may, upon request and in its discretion, make all or a portion of the foregoing special nuclear material available as uranium enriched up to ninety percent (90%) in the isotope U-235 for use in research reactors, materials testing reactors, reactor experiments, and power and power demonstration reactors, each capable of operating with a fuel load not to exceed eight (8) kilograms of the isotope U-235 contained in such uranium.

D. It is understood and agreed that although the Government of the Argentine Republic may distribute uranium enriched in the isotope U-235 to authorized users in Argentina, the Government of the Argentine Republic will retain title to any uranium enriched in the isotope U-235 which is purchased from the Commission at least until such time as private users in the United States of America are permitted to acquire title in the United States of America to uranium enriched in the isotope U-235.

E. It is agreed that when any source or special nuclear material received from the United States of America requires reprocessing, such reprocessing shall be performed at the discretion of the Commission in either Commission facilities or facilities acceptable to the Commission, on terms and conditions to be later agreed; and it is understood, except as may be otherwise agreed, that the form and content of any irradiated fuel shall not be altered after its removal from the reactor and prior to delivery to the Commission or the facilities acceptable to the Commission for reprocessing.

F. With respect to any special nuclear material not subject to the option referred to in paragraph G of this Article and produced in reactors fueled with

materials obtained from the United States of America, which is in excess of the need of Argentina for such materials in its program for the peaceful uses of atomic energy, the Government of the United States of America shall have and is hereby granted:

(a) a first option to purchase such material at prices then prevailing in the United States of America for special nuclear material produced in reactors which are fueled pursuant to the terms of an agreement for cooperation with the Government of the United States of America, and

(b) the right to approve the transfer of such material to any other nation or group of nations in the event the option to purchase is not exercised.

G. Special nuclear material produced in any part of fuel leased hereunder as a result of irradiation processes shall be for the account of the Government of the Argentine Republic and, after reprocessing as provided in Paragraph E of this Article, shall be returned to the Government of the Argentine Republic, at which time title to such material shall be transferred to that Government, unless the Government of the United States of America shall exercise the option, which is hereby accorded, to retain, with appropriate credit to the Government of the Argentine Republic, any such special nuclear material which is in excess of the needs of Argentina for such material in its program for the peaceful uses of atomic energy.

H. Some atomic energy materials which the Government of the Argentine Republic may request the Commission to provide in accordance with this Agreement are harmful to persons and property unless handled and used carefully. After delivery of such materials to the Government of the Argentine Republic, the Government of the Argentine Republic shall bear all responsibility, insofar as the Government of the United States of America is concerned, for the safe handling and use of such materials. With respect to any source or special nuclear material or other reactor materials which the Commission may, pursuant to this Agreement, lease to the Government of the Argentine Republic or to any private individual or private organization under its jurisdiction, the Government of the Argentine Republic shall indemnify and save harmless the Government of the United States of America against any and all liability (including third party liability) for any cause whatsoever arising out of the production or fabrication, the ownership, the lease, and the possession and use of such source or special nuclear material or other reactor materials after delivery by the Commission to the Government of the Argentine Republic or to any authorized private individual or private organization under its jurisdiction.

ARTICLE VIII

As may be necessary and as may be mutually agreed in connection with the subjects of agreed exchange of information as provided in Article III, and under the limitations set forth in Article II, and under such terms and conditions as may be mutually agreed, specific arrangements may be made from time to time between the Parties for lease, or sale and purchase, of quantities of materials, other than special nuclear material, greater than those required for research, when such materials are not available commercially.

ARTICLE IX

A. The Government of the United States of America and the Government of the Argentine Republic emphasize their common interest in assuring that any material and equipment or device made available to the Government of the Argentine Republic pursuant to this Agreement shall be used solely for civil purposes.

B. Except to the extent that the safeguards provided for in this Agreement are supplanted, by agreement of the Parties as provided in Article XI, by safeguards of the International Atomic Energy Agency, the Government of the United States of America, notwithstanding any other provisions of this Agreement, shall have the following rights:

1. With the objective of assuring design and operation for civil purposes and permitting effective application of safeguards, to review the design of any

(i) reactor and

(ii) other equipment and devices the design of which the Commission determines to be relevant to the effective application of safeguards, which are to be made available to the Government of the Argentine

Republic or persons under its jurisdiction by the Government of the United States of America or any person under its jurisdiction, or which are to use, fabricate, or process any of the following materials so made available: source material, special nuclear material, moderator material, or any other material designated by the Commission;

2. With respect to any source or special nuclear material made available to the Government of the Argentine Republic or any person under its jurisdiction by the Government of the United States of America or any person under its jurisdiction and any source or special nuclear material utilized in, recovered from, or produced as a result of the use of any of the following materials or equipment and devices so made available:

(i) source material, special nuclear material, moderator material, or any other material designated by the Commission,

(ii) reactors,

(iii) any other equipment or device designated by the Commission as an item to be made available on condition that the provisions of this subparagraph B2 will apply,

(a) to require the maintenance and production of operating records and to request and receive reports for the purpose of assisting in insuring accountability for such material; and

(b) to require that any such material in the custody of the Government of the Argentine Republic or any person under its jurisdiction be subject to all of the safeguards provided for in this Article and the guaranties set forth in Article X;

3. To require the deposit in storage facilities designated by the Commission of any of the special nuclear material referred to in subparagraph B2 of this Article which is not currently utilized for civil purposes in Argentina and which is not purchased or retained by the Government of the United States of America pursuant to Article VII, paragraph F(a) and paragraph G of this Agreement, transferred pursuant to Article VII, paragraph F(b) of this Agreement, or otherwise disposed of pursuant to an arrangement mutually acceptable to the Parties;

4. To designate, after consultation with the Government of the Argentine Republic, personnel who, accompanied, if either Party so requests, by personnel designated by the Government of the Argentine Republic, shall have access to all places and data necessary to account for the source and special nuclear materials which are subject to subparagraph B2 of this Article to determine whether there is compliance with this Agreement and to make such independent measurements as may be deemed necessary;

5. In the event of non-compliance with the provisions of this Article or the guaranties set forth in Article X, and the failure of the Government of the Argentine Republic to carry out the provisions of this Article within a reasonable time, to suspend or terminate this Agreement and require the return of any materials and equipment and devices referred to in subparagraph B2 of this Article;

6. To consult with the Government of the Argentine Republic in the matter of health and safety.

C. The Government of the Argentine Republic undertakes to facilitate the application of the safeguards provided for in this Article.

ARTICLE X

The Government of the Argentine Republic guarantees that:

(a) Safeguards provided in Article IX shall be maintained.

(b) No material, including equipment and devices, transferred to the Government of the Argentine Republic or authorized persons under its jurisdiction pursuant to this Agreement, by lease, sale, or otherwise, shall be used for atomic weapons or for research on or development of atomic weapons or for any other military purposes, and that no such material, including equipment and devices, will be transferred to unauthorized persons or beyond the jurisdiction of the Government of the Argentine Republic except as the Commission may agree to such transfer to another nation or group of nations and then only if in the opinion of the Commission such transfer falls within the scope of an agreement for cooperation between the United States of America and the other nation or group of nations.

ARTICLE XI

The Government of the United States of America and the Government of the Argentine Republic affirm their common interest in making mutually satisfactory arrangements to avail themselves, as soon as practicable, of the facilities and services to be made available by the International Atomic Energy Agency and to that end:

(a) The Parties will consult with each other, upon request of either Party, to determine in what respects, if any, they desire to modify the provisions of this Agreement for Cooperation. In particular, the Parties will consult with each other to determine in what respects and to what extent they desire to arrange for the administration by the International Agency of those conditions, controls, and safeguards, including those relating to health and safety standards, required by the International Agency in connection with similar assistance rendered to a cooperating nation under the aegis of the International Agency. If the Parties conclude that it is desirable to arrange for administration of safeguards by the International Agency on material and equipment transferred hereunder to the Government of the Argentine Republic, it is contemplated that arrangements for such administration may be effected without modifying the terms of this Agreement; such arrangements may provide that safeguards rights heretofore accorded to the United States of America under this agreement on such material and equipment may be suspended during such time as International Agency safeguards are in force with respect thereto.

(b) In the event the Parties do not reach a mutually satisfactory agreement following the consultation provided in subparagraph (a) of this Article, either Party may by notification terminate this Agreement. In the event this Agreement is so terminated, the Government of the Argentine Republic shall return to the Commission all source and special nuclear materials received pursuant to this Agreement and in its possession or in the possession of persons under its jurisdiction.

ARTICLE XII

A. The Agreement for Cooperation signed on July 29, 1955, as amended, is superseded in its entirety on the day this Agreement enters into force.

B. This Agreement shall enter into force on the day on which each Government shall have received from the other Government written notification that it has complied with all statutory and constitutional requirements for the entry into force of such Agreement and shall remain in force for a period of two years.

IN WITNESS WHEREOF, the undersigned, duly authorized, have signed this Agreement.

DONE at Washington, in duplicate, this twenty-second day of June, 1962.

For the Government of the United States of America:

EDWIN M. MARTIN.

GLENN T. SEABORG.

For the Government of the Argentine Republic:

R. T. ALEMANN.

Certified to be a true copy:

HARDING W. BALLOUGH,
Division of International Affairs,
U.S. Atomic Energy Commission.

APPENDIX 3

AMENDMENT TO AGREEMENT FOR COOPERATION BETWEEN THE GOVERNMENT OF THE UNITED STATES OF AMERICA AND THE GOVERNMENT OF THE UNITED STATES OF BRAZIL CONCERNING CIVIL USES OF ATOMIC ENERGY

The Government of the United States of America and the Government of the United States of Brazil,

Desiring to amend the Agreement for Cooperation Between the Government of the United States of America and the Government of the United States of Brazil Concerning Civil Uses of Atomic Energy signed at Rio de Janeiro on

August 3, 1955 (hereinafter referred to as the "Agreement for Cooperation"), as amended by the Agreements signed at Washington on July 9, 1958 and June 11, 1960,

Agree as follows:

ARTICLE I

The following new Article is added directly after Article III of the Agreement for Cooperation, as amended:

"ARTICLE III (A)

"Materials of interest in connection with defined research projects related to the peaceful uses of atomic energy undertaken by the Government of the United States of Brazil, or persons under its jurisdiction, including source materials, special nuclear materials, by-product material, other radioisotopes, and stable isotopes, will be sold or otherwise transferred to the Government of the United States of Brazil by the Commission for research purposes in such quantities and under such terms and conditions as may be agreed when such materials are not available commercially. In no case, however, shall the quantity of special nuclear materials under the jurisdiction of the Government of the United States of Brazil, by reason of transfer under this Article, be, at any one time, in excess of 100 grams of contained U-235, 10 grams of U-233, 250 grams of plutonium in the form of fabricated foils and sources, and 10 grams of plutonium in other forms."

ARTICLE II

The following sentences are added at the end of Article VII (A) of the Agreement for Cooperation, as amended: "* * * It is understood that, without modifying this Agreement, the Parties may at any time enter into arrangements to provide for application of International Atomic Energy Agency safeguards to materials and facilities transferred to the Government of the United States of Brazil under this Agreement. It is contemplated that such arrangements may include provisions for suspension of the safeguards rights accorded the Commission by Article VI, paragraph C, of this Agreement during the time and to the extent that the Agency's safeguards apply to such materials and facilities."

ARTICLE III

Article VIII of the Agreement for Cooperation, as amended, is further amended by deleting the date "August 2, 1962" and substituting in lieu thereof the date "August 2, 1964."

ARTICLE IV

This Amendment shall enter into force on the date on which each Government shall have received from the other Government written notification that it has complied with all statutory and constitutional requirements for the entry into force of such Amendment and shall remain in force for the period of the Agreement for Cooperation, as hereby amended.

IN WITNESS WHEREOF, the undersigned, duly authorized, have signed this Amendment.

DONE at Washington, in duplicate, this twenty-eighth day of May, 1962.

For the Government of the United States of America:

RICHARD N. GOODWIN.
GLENN T. SEABORG.

For the Government of the United States of Brazil:

MIGUEL A. OZ DE ALMEIDA.

Certified to be a true copy:

ALLAN T. DALTON,
Division of International Affairs,
U.S. Atomic Energy Commission.

AMENDMENT TO AGREEMENT FOR COOPERATION BETWEEN THE GOVERNMENT OF THE UNITED STATES OF AMERICA AND THE GOVERNMENT OF THE REPUBLIC OF CHINA CONCERNING CIVIL USES OF ATOMIC ENERGY

The Government of the United States of America and the Government of the Republic of China,

Desiring to amend the Agreement for Cooperation Between the Government of the United States of America and the Government of the Republic of China Concerning Civil Uses of Atomic Energy signed at Washington on July 18, 1955 (hereinafter referred to as the "Agreement for Cooperation"), as amended by the Agreements signed at Washington on December 8, 1958 and June 11, 1960, Agree as follows:

ARTICLE I

The following sentences are added at the end of Article VII (A) of the Agreement for Cooperation, as amended: "* * * It is understood that, without modifying this Agreement, the Parties may at any time enter into arrangements to provide for application of International Atomic Energy Agency safeguards to materials and facilities transferred to the Government of the Republic of China under this Agreement. It is contemplated that such arrangements may include provisions for suspension of the safeguards rights accorded the Commission by Article VI, paragraph C, of this Agreement during the time and to the extent that the Agency's safeguards apply to such materials and facilities;"

ARTICLE II

Article VIII of the Agreement for Cooperation, as amended, is further amended by deleting the date "July 17, 1962" and substituting in lieu thereof the date "July 17, 1964."

ARTICLE III

This Amendment shall enter into force on the date on which each Government shall have received from the other Government written notification that it has complied with all statutory and constitutional requirements for the entry into force of such Amendment and shall remain in force for the period of the Agreement for Cooperation, as hereby amended.

IN WITNESS WHEREOF, the undersigned, duly authorized, have signed this Amendment.

DONE at Washington, in duplicate, this thirty-first day of May, 1962.

For the Government of the United States of America:

W. AVERELL HARRIMAN.
GLENN T. SEABORG.

For the Government of the Republic of China:

TINGFU F. TSIANG.

Certified to be a true copy:

ALLAN T. DALTON.

AMENDMENT TO THE ADDITIONAL AGREEMENT FOR COOPERATION OF JUNE 11, 1960 BETWEEN THE GOVERNMENT OF THE UNITED STATES OF AMERICA AND THE EUROPEAN ATOMIC ENERGY COMMUNITY (EURATOM)

WHEREAS the Government of the United States of America and the European Atomic Energy Community (Euratom) signed an Agreement for Cooperation on November 8, 1958, concerning Peaceful Uses of Atomic Energy, as a basis for cooperation in programs for the advancement of peaceful applications of atomic energy;

WHEREAS such Agreement contemplates that from time to time the Parties may enter into further agreements for cooperation in the peaceful aspects of atomic energy;

WHEREAS said Parties signed an additional agreement (hereinafter referred to as the "Additional Agreement") on June 11, 1960, to provide for further cooperation;

WHEREAS additional programs within the Community require quantities of special nuclear material that are not provided for by existing Agreements for Cooperation;

WHEREAS the Government of the United States of America has indicated its readiness to supply these supplementary requirements for special nuclear materials,

The Parties agree to amend the Additional Agreement as follows:

1. Paragraphs A, B, C, D and E of Article I are amended to read as follows:

"A. 1. The United States will sell or lease, as the Parties may agree, to the Community for use in

"(a) defined research applications in the Community, including experimental plants for the chemical processing or fabrication of special nuclear materials, and research and materials testing reactors and

"(b) defined power (including propulsion) applications in the Community, including experimental and demonstration projects

up to a net amount of uranium 235 contained in uranium which when added to the net amount of uranium 235 required for the execution of the Joint Program as established by the Agreement for Cooperation signed on November 8, 1958, between the Parties will not exceed 30,000 kilograms of uranium 235. The net amount of uranium 235 supplied hereunder will be charged against the net amount to be delivered under said Agreement of November 8, 1958.

"2. Up to a net amount of 3,000 kilograms of uranium 235 will be made available for use in defined projects pursuant to paragraph A.1.a) of this Article. Additional quantities of uranium 235 for the same purposes may be made available in excess of the quantity of 3,000 kilograms as may be agreed.

"3. The supply of uranium 235 for defined power applications pursuant to Paragraph A.1.b) will take place pursuant to specific contracts entered into within five years of the effective date of this Agreement. After that period quantities of uranium 235 not already sold or leased for power applications may be allocated by mutual agreement to uses in the Community within the scope of this Agreement or will cease to be available for the Community unless otherwise agreed.

"4. The net amount of special nuclear material shall be its gross quantity, sold or leased to the Community, less the recoverable quantity thereof which has been resold or otherwise returned to the Government of the United States of America or transferred to any other nation or group of nations with the approval of the Government of the United States of America.

"B. The uranium supplied hereunder may contain up to twenty percent (20%) by weight of the isotope U-235. The United States Commission, however, may, upon request, make available a portion of the enriched uranium supplied hereunder as material containing more than twenty percent (20%) by weight of the isotope U-235 when there is a technical or economic justification for such a transfer.

"C. Contracts for the sale or lease of special nuclear material will be concluded between the United States Commission and the Euratom Supply Agency (the Agency established pursuant to Chapter VI of the Treaty establishing the European Atomic Energy Community) and will specify the maximum quantities to be supplied, composition of material, charges for material, delivery schedules and other necessary terms and conditions. It is understood and agreed that title to leased special nuclear material shall remain in the United States of America as lessor of such materials, it being represented by the Community that retention of such title by the United States of America is not inconsistent with the Treaty establishing the European Atomic Energy Community. It is further understood and agreed that subject to the retention of such title by the United States of America, and not in derogation of it, the Community shall have power and authority, pursuant to the Treaty establishing the European Atomic Energy Community, over special nuclear material leased by the United States Commission to the Community while such material is within the Community, and that the Community may exercise and enforce rights, powers, and authority conferred upon the Community by the Treaty and particularly Chapter VIII thereof, against Member States, enterprises and persons within the Community, provided, however, that such rights, powers and authority of the Community shall not be asserted against or in any way infringe upon the right, title, and interest of the Government of the United States of America or of the United States Commission as lessor of such materials.

"D. It is agreed that the Community may distribute special nuclear material to authorized users in the Community; the Community will retain, pursuant to the Treaty establishing the European Atomic Energy Community, title to any special nuclear material which is purchased from the United States Commission. Title to special nuclear materials produced in any part of fuel sold or leased hereunder to the Community shall be in the Community.

"E. 1. The United States Commission agrees to accept from the Community irradiated fuel elements containing special nuclear material sold or leased to the Community by the Commission hereunder and will either process such material or will make settlements therefor, on terms and conditions to be agreed.

Processing charges for material so accepted, whether processed or accepted for settlement, shall be calculated on the same basis as processing charges for domestic licensees at the time of delivery of such material to the United States Commission.

"2. At such time as the United States Commission determines that chemical processing services for fuels from the Community are commercially available, it may, upon no less than twelve months' notice to the Community, discontinue furnishing such services."

2. A new Article I BIS is added to read as follows :

"ARTICLE I BIS

"In addition to transfers for the purpose provided under Article I, the United States may transfer to the Community, under such terms and conditions as may be agreed by the Parties and within the limit of the amount authorized for transfer to the Community under said Article I, an amount of uranium enriched in the isotope U-235 for performance in the Community of conversion, or fabrication services, or both, and subsequent transfer to a nation or group of nations with which the Government of the United States has an agreement for cooperation within the scope of which the subsequent transfer falls. In addition, within the limits of the amount of special nuclear material authorized for transfer to the Community, irradiated special nuclear material may be transferred to the Community under terms and conditions to be agreed by the Parties for chemical reprocessing and subsequent transfer, as specified above, or retention by the Community. It is understood that the net amount concept as described in Paragraph A.4. of Article I shall also apply to such transfers for conversion, fabrication and reprocessing services."

3. Article II is amended to read as follows :

"ARTICLE II

"Materials of interest in connection with defined research applications (other than uranium enriched in the isotope U-235 and other special nuclear materials to be used in the fueling of reactors and reactor experiments), including up to a net amount of 30 kilograms of the isotope U-233 contained in unseparated, irradiated fuel elements (the transfer of such U-233 being subject to the availability of appropriate elements) together with such additional amounts of U-233 and plutonium as may be agreed and authorized, source material, byproduct material, other radioisotopes and stable isotopes, will be sold or otherwise transferred in such quantities and under such terms and conditions as may be agreed when such materials are not available commercially.

"The United States Commission will also from time to time sell or lease to the Community for additional applications other than those set forth above such net amounts of U-233 and plutonium (as such net amounts concept is described in Para A.4. of Article I) as may be agreed and authorized."

4. Article VI A. is amended as follows :

The words "for a period of ten (10) years" are deleted and the words "until December 31, 1985" are substituted in lieu thereof.

5. This Amendment, which shall be regarded as an integral part of the Additional Agreement, shall enter into force on the day on which each Party shall have received from the other Party written notification that it has complied with all statutory and constitutional requirements for the entry into force of this Amendment.

IN WITNESS WHEREOF, the undersigned representatives duly authorized thereto have signed this Amendment.

DONE at Brussels and Washington on May 21 and May 22, 1962, in duplicate, in the English, French, German, Italian and Netherlands languages, each language being equally authentic.

For the Government of the United States of America :

W. WALTON BUTTERWORTH.
GLENN T. SEABORG.

For the European Atomic Energy Community (EURATOM) :

H. L. KREKELER.
SASSEN.

This is to certify that this is a true copy of the Amendment text as signed by the individuals whose names are entered on this page.

DIXON B. HOYLE,
Division of International Affairs,
U.S. Atomic Energy Commission.

AMENDMENT TO THE AGREEMENT FOR COOPERATION OF NOVEMBER 8, 1958 BETWEEN
THE GOVERNMENT OF THE UNITED STATES OF AMERICA AND THE EUROPEAN ATOMIC
ENERGY COMMUNITY (EURATOM)

WHEREAS the Government of the United States of America and the European Atomic Energy Community (Euratom) signed an Agreement for Cooperation on November 8, 1958 (hereinafter referred to as the "Agreement for Cooperation") as a basis for cooperation in programs for the advancement of peaceful applications of atomic energy;

WHEREAS the Agreement for Cooperation provides for the sale of special nuclear materials to the Community;

WHEREAS the Government of the United States of America was prepared at the outset to make special nuclear materials available not only on the basis of sale but on a lease basis and would be willing to consider appropriate modifications to said Agreement should the Community's policy permit;

WHEREAS the Euratom Cooperation Act of 1958 authorizes in Section 5 thereof sale or lease of special nuclear material to the Community;

WHEREAS the Community has informed the Government of the United States of America that it may desire to acquire special nuclear materials on a lease basis;

WHEREAS the Parties have agreed to provide for the lease of special nuclear materials to the Community,

The Parties agree to amend the Agreement for Cooperation as follows:

1. Article III of the Agreement for Cooperation is amended to read as follows:

"A. The United States Commission will either sell or lease, as the Euratom Commission may request, to the Community uranium enriched in the isotope U-235 for use in projects designated by the Parties pursuant to the Joint Program up to a net amount of thirty thousand (30,000) kilograms of contained U-235 in uranium provided that lease of such enriched uranium for research and development purposes shall be subject to the mutual agreement of the Parties. This net amount shall be the gross quantity of contained U-235 in uranium sold or leased to the Community less the quantity of contained U-235 in recoverable uranium which has been resold or otherwise returned to the Government of the United States of America or transferred to any other nation or group of nations with the approval of the Government of the United States of America. The United States Commission will also from time to time sell or lease to the Community such quantities of special nuclear material, in addition to the quantities of enriched uranium set forth above, as may be agreed.

"Any lease by the United States Commission of special nuclear material hereunder may upon request of the Euratom Commission be converted to a sale of such materials if such sale is, at the time the request is made, consistent with the applicable laws in the United States and the policy of the United States Commission with respect to the distribution of special nuclear materials outside the United States, it being understood that any such sale will not be on a deferred payment basis unless otherwise agreed.

"In the event that the licensee of any power reactor brought into operation in the United States prior to December 31, 1963, is required by the United States Commission to purchase uranium enriched in the isotope U-235 to fuel such power reactor, the United States Commission will thereupon have the right to convert any lease arrangement made hereunder to a sale arrangement, provided however, that

"(1) Euratom will be given advance notice of such change to the same extent as United States lessees;

"(2) such sales may be on a deferred payment basis, provided however, that payments on principal must be completed

"(a) for reactors to be brought into operation by December 31, 1963, within twenty years after the reactor for which such material is provided is brought into operation or by December 31, 1983, whichever occurs earlier;

"(b) for reactors to be brought into operation by December 31, 1965, within twenty years after the reactor for which such material is provided is brought into operation or by December 31, 1985, whichever occurs earlier,

and will consist of ten consecutive equal annual instalments or such lesser number as there are years remaining for payment, and

"(3) the Parties will consult on ways to minimize the impact of such conversion.

"The uranium supplied hereunder for use in reactors designed for production of electric power may be enriched up to twenty percent (20%) by weight in the isotope U-235. The United States Commission, however, may, upon request and in its discretion, make a portion of the foregoing enriched uranium available as material enriched up to ninety percent (90%) for use in materials testing reactors and research reactors, each capable of operating with a fuel load not to exceed eight (8) kilograms of contained U-235 in uranium and as highly enriched material for use for research purposes.

"B. Contracts for the sale of special nuclear materials will be concluded between the United States Commission and the Euratom Supply Agency and will specify the maximum quantities to be supplied, composition of material, charges for material, delivery schedules and other necessary terms and conditions. Such contracts for the sale of enriched uranium for fueling power reactors under the Joint Program may also provide, under terms and conditions to be agreed, that payment for such enriched uranium may be made on a deferred basis. Such terms and conditions will include an obligation that the Community return to the United States Commission enriched uranium to the extent that there is default in payment. The Community will grant no rights to third parties that may be inconsistent with such obligation.

"C. Contracts for lease of special nuclear material by the United States Commission to the Community will be concluded between the United States Commission and the Euratom Supply Agency and will specify the maximum quantities to be supplied, composition of material, charges for material, delivery schedules and other necessary terms and conditions. It is understood and agreed that title to leased special nuclear material shall remain in the United States of America, as lessor of such material, it being represented by Euratom that retention of such title by the United States of America is not inconsistent with the Treaty establishing the European Atomic Energy Community. It is further understood and agreed that subject to the retention of such title by the United States of America, and not in derogation of it, the Community shall have power and authority, pursuant to the Treaty establishing the European Atomic Energy Community, over special nuclear material leased by the United States Commission to the Community while such material is within the Community, and that the Community may exercise and enforce rights, powers and authority conferred upon the Community by the Treaty, and particularly Chapter VIII thereof, against Member States, enterprises and persons within the Community, provided, however, that such rights, powers and authority of the Community shall not be asserted against or in any way infringe upon the right, title and interest of the Government of the United States of America or of the United States Commission as lessor of such materials.

"D. It is agreed that the Community may distribute special nuclear materials to authorized users in the Community; the Community will retain, pursuant to the Treaty establishing the European Atomic Energy Community, title to any special nuclear material which is purchased from the United States Commission. Title to special nuclear material produced in any part of fuel sold or leased hereunder shall be in the Community.

"E. The United States Commission is prepared to perform while such services are available from the Commission to its licensees in the United States, and, on terms and conditions to be agreed, chemical reprocessing services with respect to any source or special nuclear material purchased by the Community from the United States under this program. When any source or special nuclear material leased under this program from the United States requires reprocessing, such reprocessing shall be performed at the discretion of the United States Commission either by the United States Commission or in other facilities acceptable to it on terms and conditions to be agreed. It is further agreed that any reprocessing by the United States Commission under this Agreement will be performed at established United States domestic prices in effect upon delivery of such material. It is understood, except as may be otherwise agreed, that the form and content of any irradiated fuel elements shall not be altered after their removal from reactors and prior to delivery to the United States Commission or other facilities. Special nuclear material and other material recoverable from material returned to the United States Commission for reprocessing will be returned to the Community unless otherwise agreed. It is anticipated that any withdrawal by the United States Commission of chemical reprocessing services will be based upon the availability of commercial facilities to meet requirements for such services at reasonable prices, including the requirements of projects in the Joint Program. The United States Commission will give written notice to the Community of non-

availability of its chemical reprocessing services twelve (12) months prior to such non-availability.

"F. With respect to any special nuclear material produced in reactors fueled with material obtained from the United States under this Agreement which is in excess of the need within the Community for such material for the peaceful uses of atomic energy, the International Atomic Energy Agency is granted the right of first option to purchase such material at the announced fuel value price in effect in the United States at the time of purchase. In the event this option is not exercised by the International Atomic Energy Agency, the Government of the United States of America is prepared to purchase such material at the United States announced fuel value price in effect at the time of purchase. However, with respect to plutonium produced in any reactor constructed under the Joint Program, no purchase commitment shall extend for a period beyond ten (10) years of operation of such reactor, or December 31, 1973 (or December 31, 1975 for not more than two reactors selected under Article I. A.) whichever is earlier. Extension of such "period will be the subject of negotiation on the request of either Party."

2. Article VII of the Agreement for Cooperation is amended as follows:

(a) The words "for all purposes" which appear at the end of Paragraphs A.1., A.2., A.3.a., and A.3.b., respectively, are deleted and the words "for use in the production or utilization of special nuclear material or atomic energy" are in each case substituted in lieu thereof.

(b) The words "covering use" which appear in two places in Paragraph C are deleted and the words "for use in the production or utilization of special nuclear material or atomic energy" are substituted in lieu thereof.

3. Article XIV BIS is added to the Agreement for Cooperation to read as follows:

"A. Euratom shall indemnify and save harmless the Government of the United States of America against any damages or third party liability arising out of or resulting from the Joint Program except those arising from arrangements made by the United States Commission under a research and development program authorized in Section 3 of the Euratom Cooperation Act of 1958, as amended, provided, however, that nothing in this paragraph shall deprive Euratom or any other person of any rights under Section 170 of the Atomic Energy Act of 1954 as amended.

"B. The Parties recognize that certain nuclear liability which could arise out of the implementation of the Cooperative Program established by this Agreement is expected to be covered by the Paris Convention of July 29, 1960, on third party liability in the field of nuclear energy and a proposed supplementary Convention to which the Member States of the Community would be parties, as well as by corresponding legislation existing in the Member States."

4. A new section (e) is added to Article XV to read as follows:

"(e) 'Euratom Supply Agency' means the Agency established pursuant to Chapter VI of the Treaty establishing the European Atomic Energy Community."

5. Article XVI B. of the Agreement for Cooperation is amended as follows: The words "for a period of twenty-five (25) years" are deleted and the words "until December 31, 1985" are substituted in lieu thereof.

6. This Amendment, which shall be regarded as an integral part of the Agreement for Cooperation, shall enter into force on the day on which each Party shall have received from the other Party written notification that it has complied with all statutory and constitutional requirements for the entry into force of this Amendment.

IN WITNESS WHEREOF, the undersigned representatives duly authorized thereto have signed this Amendment.

DONE at Brussels and Washington on May 21 and May 22, 1962 in duplicate, in the English, French, German, Italian, and Netherlands languages, each language being equally authentic.

For the Government of the United States of America:

W. WALTON BUTTERWORTH.
GLENN T. SEABORG.

For the European Atomic Energy Community (EURATOM):

H. L. KREKELER.
SASSEN.

This is to certify that this is a true copy of the Amendment text as signed by the individuals whose names are entered on this page.

DIXON B. HOYLE,
Division of International Affairs,
U.S. Atomic Energy Commission.

AMENDMENT TO AGREEMENT FOR COOPERATION CONCERNING CIVIL USES OF ATOMIC ENERGY BETWEEN THE GOVERNMENT OF THE UNITED STATES OF AMERICA AND THE GOVERNMENT OF THE FRENCH REPUBLIC

The Government of the United States of America and the Government of the French Republic,

Desiring to amend further the Agreement for Cooperation Concerning the Civil Uses of Atomic Energy Between the Government of the United States of America and the Government of the French Republic, signed at Washington on June 19, 1956 (hereinafter referred to as the "Agreement for Cooperation"), as amended by the Agreement signed at Washington on July 3, 1957, the Agreement signed at Washington on July 22, 1959, and the Agreement signed at Washington on September 30, 1960,

Have agreed as follows:

ARTICLE I

Paragraph A of Article VIII of the Agreement for Cooperation, as amended, is further amended by inserting a comma and the words "criticality experiments" after the words "materials testing reactors" in the first sentence of said paragraph.

ARTICLE II

Paragraph C of Article VIII of the Agreement for Cooperation, as amended, is deleted and the following paragraph C is substituted in lieu thereof:

"C.1. The Commission may, upon request and in its discretion, make a portion of the foregoing special nuclear material available as material enriched up to ninety percent (90%) for use in (a) research reactors, materials testing reactors and reactor experiments, each capable of operating with a fuel load not to exceed 8 kilograms of U-235 contained in uranium and (b) criticality experiments, provided that not more than 100 kilograms of U-235 in the aggregate will be available for such criticality experiments. In addition, the Commission may upon request and in its discretion make up to a net amount of 300 kilograms of the U-235 to be transferred under this Article available as material enriched up to sixty percent (60%) for use in the reactor experiment Rapsodie.

"2. In addition to the transfers for the purposes provided under Article VI and paragraphs A and C (1) of this Article, the Commission may transfer to the Government of the French Republic, under such terms and conditions as may be agreed by the Parties and within the limit of the amounts authorized in paragraph A of this Article, special nuclear material for the performance in France of conversion or fabrication services, or both, and subsequent transfer to a nation or group of nations with which the Government of the United States of America has an Agreement for Cooperation within the scope of which such subsequent transfer falls. It is understood that the net amount concept described in paragraph A of this Article is also applicable to such transfers for conversion or fabrication services."

ARTICLE III

This Amendment, which shall be regarded as an integral part of the Agreement for Cooperation, as amended, shall enter into force on the day on which each Government shall have received from the other Government written notification that it has complied with all statutory and constitutional requirements for the entry into force of this Amendment.

IN WITNESS WHEREOF, the undersigned, duly authorized, have signed this Amendment.

DONE at Washington, in duplicate, in the English and French languages, both equally authentic, this twenty-second day of June, 1962.

For the Government of the United States of America:

WILLIAM R. TYLER.
GLENN T. SEABORG.

For the Government of the French Republic:

P. PELEN.

Certified to be a true copy:

HARDING W. BALLOUGH,
Division of International Affairs,
U.S. Atomic Energy Commission.

AMENDMENT TO AGREEMENT FOR COOPERATION CONCERNING CIVIL USES OF ATOMIC ENERGY BETWEEN THE GOVERNMENT OF THE UNITED STATES OF AMERICA AND THE GOVERNMENT OF THE FEDERAL REPUBLIC OF GERMANY

The Government of the United States of America and the Government of the Federal Republic of Germany,

Desiring to amend the Agreement for Cooperation Concerning the Civil Uses of Atomic Energy Between the Government of the United States of America and the Government of the Federal Republic of Germany, signed at Washington on July 3, 1957 (hereinafter referred to as the "Agreement for Cooperation"), as amended by the Agreement signed at Washington on July 22, 1959,

Have agreed as follows:

ARTICLE I

Paragraph C of Article VIII of the Agreement for Cooperation, as amended, is amended as follows:

The numeral (1) is placed before the present paragraph and the following paragraph is added:

"(2) In addition to transfers for the purposes provided under Article VI and paragraphs A and C (1) of this Article, the Commission may transfer to the Government of the Federal Republic of Germany under such terms and conditions as may be agreed by the Parties, and within the limit of the amount authorized in paragraph A of this Article, special nuclear material for the performance in the Federal Republic of Germany of conversion or fabrication services, or both, and subsequent transfer to a nation or international organization with which the Government of the United States of America has an Agreement for Cooperation within the scope of which such subsequent transfer falls. It is understood that the net amount concept as described in paragraph A of this Article is also applicable to such transfers for conversion or fabrication services."

ARTICLE II

This Amendment, which shall be regarded as an integral part of the Agreement for Cooperation, as amended, shall enter into force on the day on which each Government shall have received from the other Government written notification that it has complied with all statutory and constitutional requirements for the entry into force of this Amendment.

IN WITNESS WHEREOF, the undersigned, duly authorized, have signed this Amendment.

DONE at Washington, in duplicate, in the English and German languages, both equally authentic, this fifth day of July 1962.

For the Government of the United States of America:

RICHARD H. DAVIS
GLENN T. SEABORG.

For the Government of the Federal Republic of Germany:

GEORG VON LILLIENFELD.

Certified to be a true copy:

HARDING W. BALLOUGH,
Division of International Affairs,
U.S. Atomic Energy Commission.

AMENDMENT TO AGREEMENT FOR COOPERATION BETWEEN THE GOVERNMENT OF THE UNITED STATES OF AMERICA AND THE GOVERNMENT OF THE KINGDOM OF GREECE CONCERNING CIVIL USES OF ATOMIC ENERGY

The Government of the United States of America and the Government of the Kingdom of Greece,

Desiring to amend the Agreement for Cooperation Between the Government of the United States of America and the Government of the Kingdom of Greece Concerning Civil Uses of Atomic Energy, signed at Washington on August 4, 1955 (hereinafter referred to as the "Agreement for Cooperation"), as amended by the Agreements signed at Washington on June 11, 1960, and April 3, 1962,

Agree as follows:

ARTICLE I

The following sentences are added at the end of Article VII(A) of the Agreement for Cooperation, as amended :

"It is understood that, without modifying this Agreement, the Parties may at any time enter into arrangements to provide for application of International Atomic Energy Agency safeguards to materials and facilities transferred to the Government of the Kingdom of Greece under this Agreement. It is contemplated that such arrangements may also include provisions for suspension of the safeguards rights accorded the Commission by Article VI, paragraph C, of this Agreement during the time and to the extent that the Agency's safeguards apply to such materials and facilities."

ARTICLE II

Article VIII of the Agreement for Cooperation, as amended, is further amended by deleting the date "August 3, 1962" and substituting in lieu thereof the date "August 3, 1964".

ARTICLE III

This Amendment shall enter into force on the date on which each Government shall have received from the other Government written notification that it has complied with all statutory and constitutional requirements for the entry into force of such Amendment and shall remain in force for the period of the Agreement for Cooperation, as hereby amended.

IN WITNESS WHEREOF, the undersigned, duly authorized, have signed this Amendment.

DONE at Washington, in duplicate, this twenty-second day of June, 1962.

For the Government of the United States of America :

PHILLIPS TALBOT.
GLENN T. SEABORG.

For the Government of the Kingdom of Greece :

ALEXANDER A. MATSAS.

Certified to be a true copy :

HARDING W. BALLOUGH,
Division of International Affairs,
U.S. Atomic Energy Commission.

AMENDMENT TO AGREEMENT FOR COOPERATION BETWEEN THE GOVERNMENT OF THE UNITED STATES OF AMERICA AND THE GOVERNMENT OF ISRAEL CONCERNING CIVIL USES OF ATOMIC ENERGY

The Government of the United States of America and the Government of Israel,

Desiring to amend the Agreement for Cooperation Between the Government of the United States of America and the Government of Israel Concerning Civil Uses of Atomic Energy signed at Washington on July 12, 1955 (hereinafter referred to as the "Agreement for Cooperation"), as amended by the Agreements signed at Washington on August 20, 1959 and June 11, 1960,

Agree as follows :

ARTICLE I

The following new sentence is added at the end of paragraph (a) of Article VI bis of the Agreement for Cooperation, as amended :

"If the Parties conclude that it is desirable to arrange for administration of safeguards by the Agency on material and equipment transferred hereunder to the Government of Israel, it is contemplated that arrangements for such administration may be effected without the necessity of modifying the terms of this Agreement; such arrangements may provide that safeguards rights heretofore accorded to the United States of America under this agreement on such material and equipment may be suspended during such time as Agency safeguards are in force with respect thereto."

ARTICLE II

Article VIII of the Agreement for Cooperation, as amended, is further amended by deleting the date "July 11, 1962" and substituting in lieu thereof the date "July 11, 1964".

ARTICLE III

This Amendment shall enter into force on the date on which each Government shall have received from the other Government written notification that it has complied with all statutory and constitutional requirements for the entry into force of such Amendment and shall remain in force for the period of the Agreement for Cooperation, as hereby amended.

IN WITNESS WHEREOF, the undersigned, duly authorized, have signed this Amendment.

DONE at Washington, in duplicate, this twenty-second day of June, 1962.

For the Government of Israel :

PHILLIPS TALBOT.
GLENN T. SEABORG.

For the Government of Israel :

AVRAHAM HARMAN.

Certified to be a true copy :

HARDING W. BALLOUGH,
Division of International Affairs,
U.S. Atomic Energy Commission.

AMENDMENT TO AGREEMENT FOR COOPERATION BETWEEN THE GOVERNMENT OF THE UNITED STATES OF AMERICA AND THE GOVERNMENT OF PORTUGAL CONCERNING CIVIL USES OF ATOMIC ENERGY

The Government of the United States of America and the Government of Portugal,

Desiring to amend the Agreement for Cooperation Between the Government of the United States of America and the Government of Portugal Concerning Civil Uses of Atomic Energy, signed at Washington on July 21, 1955 (hereinafter referred to as the "Agreement for Cooperation"), as amended by the Agreement signed at Washington on June 7, 1957, and as amended by the Agreement signed at Washington on June 11, 1960,

Agree as follows :

ARTICLE I

The last sentence of Article III (A) of the Agreement for Cooperation as amended, is further amended by deleting the phrase "10 grams of plutonium, and 10 grams of U-233" and substituting in lieu thereof the phrase "10 grams of U-233, 250 grams of plutonium in the form of fabricated foils and sources, and 10 grams of plutonium in other forms."

ARTICLE II

The following sentences are added at the end of Article VII (A) of the Agreement for Cooperation, as amended :

"It is understood that, without modifying this Agreement, the Parties may at any time enter into arrangements to provide for application of International Atomic Energy Agency safeguards to materials and facilities transferred to the Government of Portugal under this Agreement. It is contemplated that such arrangements may include provisions for suspension of the safeguards rights accorded the Commission by Article VI, paragraph C, of this Agreement during the time and to the extent that the Agency's safeguards apply to such materials and facilities."

ARTICLE III

Article VIII of the Agreement for Cooperation, as amended, is further amended by deleting the date "July 20, 1962" and substituting in lieu thereof "July 20, 1964".

ARTICLE IV

This Amendment shall enter into force on the date on which each Government shall have received from the other Government written notification that it has complied with all statutory and constitutional requirements for the entry into force of such Amendment and shall remain in force for the period of the Agreement for Cooperation, as hereby amended.

IN WITNESS WHEREOF, the undersigned, duly authorized, have signed this Amendment.

DONE at Washington, in duplicate, this twenty-eighth day of May, 1962.

For the Government of the United States of America :

FOY D. KOHLER.
GLENN T. SEABORG.

For the Government of Portugal :

PEDRO THEOTONIO PEREIRA.

Certified to be a true copy :

L. F. O'DONNELL,
Division of International Affairs,
U.S. Atomic Energy Commission.

AMENDMENT TO AGREEMENT FOR COOPERATION BETWEEN THE GOVERNMENT OF THE UNITED STATES OF AMERICA AND THE GOVERNMENT OF THE REPUBLIC OF SOUTH AFRICA CONCERNING CIVIL USES OF ATOMIC ENERGY

The Government of the United States of America and the Government of the Republic of South Africa,

Desiring to amend the Agreement for Cooperation Between the Government of the United States of America and the Government of the Republic of South Africa Concerning Civil Uses of Atomic Energy signed at Washington on July 8, 1957 (hereinafter referred to as the "Agreement for Cooperation"),

Agree as follows :

ARTICLE I

The preamble and all articles of the Agreement for Cooperation in which the words "Union of South Africa" appear are amended, where not otherwise changed by the articles following, by deleting the word "Union" and substituting the word "Republic" in lieu thereof.

ARTICLE II

Article VI of the Agreement for Cooperation is amended to read as follows :

"A. Research Materials

"Materials of interest in connection with defined research projects related to the peaceful uses of atomic energy as provided by Article IV and under the limitations set forth in Article III, including source materials, special nuclear materials, byproduct material, other radioisotopes, and stable isotopes, will be exchanged for research purposes other than fueling reactors and reactor experiments in such quantities and under such terms and conditions as may be agreed when such materials are not available commercially.

"B. Research Facilities

"Subject to the provisions of Article III, and under such terms and conditions as may be agreed, and to the extent as may be agreed, specialized research facilities and reactor materials testing facilities of the Parties shall be made available for mutual use consistent with the limits of space, facilities, and personnel conveniently available, when such facilities are not commercially available."

ARTICLE III

Article VIII of the Agreement for Cooperation is amended to read as follows :

"A. The United States Commission will sell or lease, as may be agreed, to the Government of the Republic of South Africa uranium enriched up to twenty percent (20%) in the isotope U-235, except as otherwise provided in paragraph C of this Article, in such quantities as may be agreed in accordance with the terms, conditions, and delivery schedules set forth in contracts for fueling defined research, experimental power, demonstration power, and power reactors, materials testing reactors, and reactor experiments, which the Government of the Republic of South Africa, in consultation with the Commission, decides to construct or authorize private organizations to construct and which are constructed in the Republic of South Africa and as required in experiments related thereto; provided, however, that the net amount of any uranium sold or leased under this Article during the period of this Agreement shall not at any time exceed

five hundred (500) kilograms of contained U-235. This net amount shall be the gross quantity of contained U-235 in uranium sold or leased to the Government of the Republic of South Africa during the period of this Agreement less the quantity of contained U-235 in recoverable uranium which has been resold or otherwise returned to the Government of the United States of America during the period of this Agreement or transferred to any other nation or international organization with the approval of the Government of the United States of America.

"B. Within the limitations contained in paragraph A of this Article, the quantity of uranium enriched in the isotope U-235 transferred by the United States Commission under this Article and in the custody of the Government of the Republic of South Africa shall not at any time be in excess of the amount of material necessary for the full loading of each defined reactor project which the Government of the Republic of South Africa or persons under its jurisdiction decide to construct and fuel with uranium obtained from the United States of America, as provided herein, plus such additional quantity as, in the opinion of the United States Commission, is necessary to permit the efficient and continuous operation of such reactor or reactors while replaced fuel is radioactively cooling, is in transit, or, subject to the provisions of paragraph E of this Article, is being reprocessed in the Republic of South Africa, it being the intent of the United States Commission to make possible the maximum usefulness of the material so transferred.

"C. The United States Commission may, upon request and in its discretion, make a portion of the foregoing special nuclear material available as material enriched up to ninety percent (90%) for use in materials testing reactors, research reactors, and reactor experiments, each capable of operating with a fuel load not to exceed eight (8) kilograms of contained U-235 in uranium.

"D. It is understood and agreed that although the Government of the Republic of South Africa may distribute uranium enriched in the isotope U-235 to authorized users in the Republic of South Africa, the Government of the Republic of South Africa will retain title to any uranium enriched in the isotope U-235 which is purchased from the United States Commission at least until such time as private users in the United States of America are permitted to acquire title in the United States of America to uranium enriched in the isotope U-235.

"E. It is agreed that when any source or special nuclear material received from the United States of America requires reprocessing, such reprocessing shall be performed at the discretion of the United States Commission in either United States Commission facilities or facilities acceptable to the United States Commission, on terms and conditions to be later agreed; and it is understood, except as may be otherwise agreed, that the form and content of any irradiated fuel elements shall not be altered after their removal from the reactor and prior to delivery to the United States Commission or the facilities acceptable to the United States Commission for reprocessing.

"F. With respect to any special nuclear material not subject to the option referred to in paragraph G of this Article and produced in reactors fueled with material obtained from the United States of America which is in excess of the need of the Government of the Republic of South Africa for such material in its program for the peaceful uses of atomic energy, the Government of the United States of America shall have and is hereby granted (a) a first option to purchase such material at prices then prevailing in the United States of America for special nuclear material produced in reactors which are fueled pursuant to the terms of an agreement for cooperation with the Government of the United States of America, and (b) the right to approve the transfer of such material to any other nation or international organization in the event the option to purchase is not exercised.

"G. Special nuclear material produced in any part of fuel leased hereunder as a result of irradiation processes shall be for the account of the Government of the Republic of South Africa and, after reprocessing as provided in paragraph E of this Article, shall be returned to the Government of the Republic of South Africa, at which time title to such material shall be transferred to that Government, unless the Government of the United States of America shall exercise the option, which is hereby granted, to retain, with appropriate credit to the Government of the Republic of South Africa, any such special nuclear material which is in excess of the needs of the Republic of South Africa for such material in its program for the peaceful uses of atomic energy.

"H. Some atomic energy materials which the United States Commission may provide in accordance with this Agreement are harmful to persons and property unless handled and used carefully. After delivery of such materials to the

Government of the Republic of South Africa, the Government of the Republic of South Africa shall bear all responsibility, insofar as the Government of the United States of America is concerned, for the safe handling and use of such materials. With respect to any source or special nuclear material or other reactor material which the Commission may, pursuant to this Agreement, lease to the Government of the Republic of South Africa or to any private individual or private organization under its jurisdiction, the Government of the Republic of South Africa shall indemnify and save harmless the Government of the United States of America against any and all liability (including third party liability) for any cause whatsoever arising out of the production or fabrication, the ownership, the lease, and the possession and use of such source or special nuclear material or other reactor materials after delivery by the United States Commission to the Government of the Republic of South Africa or to any authorized private individual or private organization under its jurisdiction."

ARTICLE IV

Article X, paragraph B of the Agreement for Cooperation is amended by deleting the word "proposed" before the words "International Atomic Energy Agency".

B. Article X, subparagraph B3 of the Agreement for Cooperation is amended to read as follows:

"3. To require the deposit in storage facilities designated by the United States Commission of any of the special nuclear material referred to in subparagraph B2 of this Article which is not currently utilized for civil purposes in the Republic of South Africa and which is not purchased or retained by the Government of the United States of America pursuant to Article VIII of this Agreement, or otherwise disposed of pursuant to an arrangement mutually acceptable to the Parties."

ARTICLE V

Article XII of the Agreement for Cooperation is amended to read as follows:

"The Government of the United States of America and the Government of the Republic of South Africa affirm their common interest in making mutually satisfactory arrangements to avail themselves, as soon as practicable, of the facilities and services to be made available by the International Atomic Energy Agency and to that end:

"(a) The Parties will consult with each other, upon request of either Party, to determine in what respects, if any, they desire to modify the provisions of the Agreement for Cooperation. In particular, the Parties will consult with each other to determine in what respects and to what extent they desire to arrange for the administration by the International Agency of those conditions, controls, and safeguards, including those relating to health and safety standards, required by the International Agency in connection with similar assistance rendered to a cooperating nation under the aegis of the International Agency. If the Parties conclude that it is desirable to arrange for administration of safeguards by the Agency on material and equipment transferred hereunder to the Government of the Republic of South Africa, it is contemplated that arrangements for such administration may be effected without the necessity of modifying the terms of this Agreement; such arrangements may provide that safeguards rights heretofore accorded to the United States of America under this Agreement on such material and equipment may be suspended during such time as Agency safeguards are in force with respect thereto.

"(b) In the event the Parties do not reach a mutually satisfactory agreement following the consultation provided in subparagraph (a) of this Article, either Party may by notification terminate this Agreement. In the event this Agreement is so terminated, the Government of the Republic of South Africa shall return to the United States Commission all source and special nuclear materials received pursuant to this Agreement and in its possession or in the possession of persons under its jurisdiction."

ARTICLE VI

This amendment shall enter into force on the date on which each Government shall have received from the other Government written notification that it has complied with all statutory and constitutional requirements for the entry into force of this Amendment and shall remain in force for the period of the Agreement for Cooperation.

IN WITNESS WHEREOF, the undersigned, duly authorized, have signed this Amendment.

DONE at Washington, in duplicate, this twelfth day of June, 1962.

For the Government of the United States of America :

HENRY J. TASCA.
GLENN T. SEABORG.

For the Government of the Republic of South Africa :

A. G. DUNN.

Certified to be a true copy :

ROBERT N. SLAWSON,
Division of International Affairs,
U.S. Atomic Energy Commission.

AMENDMENT TO AGREEMENT FOR COOPERATION BETWEEN THE GOVERNMENT OF THE UNITED STATES OF AMERICA AND THE GOVERNMENT OF THE KINGDOM OF THAILAND CONCERNING CIVIL USES OF ATOMIC ENERGY

The Government of the United States of America and the Government of the Kingdom of Thailand,

Desiring to amend the Agreement for Cooperation Between the Government of the United States of America and the Government of the Kingdom of Thailand concerning Civil Uses of Atomic Energy signed at Bangkok on March 13, 1956 (hereinafter referred to as the "Agreement for Cooperation"), as amended by the Agreements signed at Washington on March 27, 1957 and June 11, 1960,

Agree as follows:

ARTICLE I

The following new sentences are added at the end of Paragraph (b) of Article IX(A) of the Agreement for Cooperation, as amended:

"* * * It is understood that, without modifying this Agreement, the Parties may at any time enter into arrangements to provide for application of International Atomic Energy Agency safeguards to materials and facilities transferred to the Government of the Kingdom of Thailand under this Agreement. It is contemplated that such arrangements may include provisions for suspension of the safeguards rights accorded the Government of the United States of America by Article VI, paragraph B, of this Agreement during the time and to the extent that the Agency's safeguards apply to such materials and facilities."

ARTICLE II

Article VIII of the Agreement for cooperation, as amended, is further amended by deleting the date "March 12, 1963" and substituting in lieu thereof the date "March 12, 1965".

ARTICLE III

This Amendment shall enter into force on the date on which each Government shall have received from the other Government written notification that it has complied with all statutory and constitutional requirements for the entry into force of such Amendment and shall remain in force for the period of the Agreement for Cooperation, as hereby amended.

IN WITNESS WHEREOF, the undersigned, duly authorized, have signed this Amendment.

DONE at Washington, in duplicate, this thirty-first day of May, 1962. (B.E. 2505.)

For the Government of the United States of America :

W. AVERELL HARRIMAN.
GLENN T. SEABORG.

For the Government of the Kingdom of Thailand :

VISUTR ARTHAYUKTI.

Certified to be a true copy :

ALLAN T. DALTON,
Division of International Affairs,
U.S. Atomic Energy Commission.

AMENDMENT TO AGREEMENT FOR COOPERATION BETWEEN THE GOVERNMENT OF THE UNITED STATES OF AMERICA AND THE GOVERNMENT OF THE FEDERAL REPUBLIC OF GERMANY ON BEHALF OF BERLIN CONCERNING CIVIL USES OF ATOMIC ENERGY

The Government of the United States of America and the Government of the Federal Republic of Germany acting on behalf of Berlin,

Desiring to amend the Agreement for Cooperation Between the Government of the United States of America and the Government of the Federal Republic of Germany on Behalf of Berlin Concerning Civil Uses of Atomic Energy signed at Washington on June 28, 1957 (hereinafter referred to as the "Agreement for Cooperation"),

Agree as follows:

ARTICLE I

Paragraph 3 of Article IV of the Agreement for Cooperation is amended to read as follows:

"3. It is agreed that when any source or special nuclear material received from the United States of America requires reprocessing, such reprocessing shall be performed at the discretion of the Commission in either Commission facilities or facilities acceptable to the Commission, on terms and conditions to be later agreed; and it is understood, except as may be otherwise agreed, that the form and content of any irradiated fuel elements shall not be altered after their removal from the reactor and prior to delivery to the Commission or to facilities acceptable to the Commission for reprocessing."

ARTICLE II

The last sentence of Article V of the Agreement for Cooperation is amended by deleting the phrase "10 grams of plutonium, and 10 grams of U-233" and substituting in lieu thereof the phrase "10 grams of U-233, 250 grams of plutonium in the form of fabricated foils and sources, and 10 grams of plutonium in other forms".

ARTICLE III

The first sentence of Article XI of the Agreement for Cooperation is amended by deleting the phrase "five years" and substituting in lieu thereof the phrase "ten years".

ARTICLE IV

This Amendment shall enter into force on the date on which the Government of the United States of America and the Government of the Federal Republic of Germany have advised each other in writing that they have complied with all statutory and constitutional requirements for the entry into force of such Amendment and it shall remain in force for the period of the Agreement for Cooperation, as hereby amended. Such advice from the Government of the Federal Republic of Germany shall include a statement that all legal procedures necessary for the application of the present Amendment to Berlin have been complied with.

IN WITNESS WHEREOF, the undersigned, duly authorized, have signed this Amendment.

DONE at Washington in duplicate, in the English and German languages, both texts being equally authentic, this twenty-ninth day of June, 1962.

For the Government of the United States of America:

J. ROBERT SCHAETZEL.

JOHN S. GRAHAM.

For the Government of the Federal Republic of Germany:

GEORG VON LILIENFELD.

Certified to be a true copy:

HARDING W. BALLOUGH,
Division of International Affairs,
U.S. Atomic Energy Commission.

ANNEX TO THE AMENDMENT TO THE AGREEMENT FOR COOPERATION BETWEEN THE GOVERNMENT OF THE UNITED STATES OF AMERICA AND THE GOVERNMENT OF THE FEDERAL REPUBLIC OF GERMANY ON BEHALF OF BERLIN CONCERNING CIVIL USES OF ATOMIC ENERGY

With regard to the Agreement for Cooperation between the Government of the United States of America and the Government of the Federal Republic of Germany on Behalf of Berlin Concerning Civil Uses of Atomic Energy signed at Washington on June 28, 1957 (hereinafter referred to as the "Agreement for Cooperation"), as amended by the Agreement signed at ----- on ----- the Senate of Berlin accepts the provisions of the Agreement for Cooperation, as amended, and makes the following guaranties:

- (a) The safeguards provided in Article VIII thereof shall be maintained.
- (b) No material, including equipment and devices, transferred to the Senate of Berlin or authorized persons under its jurisdiction, pursuant to this Agreement, by lease, sale, or otherwise will be used for atomic weapons or for research on or development of atomic weapons or for any other military purposes, and no such material, including equipment and devices, will be transferred to unauthorized persons or beyond Berlin, except as the Commission may agree to such transfer to a nation and then only if in the opinion of the Commission such transfer falls within the scope of an agreement for cooperation between the United States and such nation.

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