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POLICY ISSUE

(NEGATIVE CONSENT)

January 19, 1995

SECY-95-008

FOR: The Commissioners

FROM: Carlton R. Stoiber, Director
Office of International Programs

SUBJECT: DOE PROPOSED SUBSEQUENT ARRANGEMENTS FOR RETRANSFER OF SPENT FUEL ASSEMBLIES FROM SWITZERLAND TO THE UNITED KINGDOM [RTD/EU(SD)-81], AND FROM SWITZERLAND TO FRANCE [RTD/EU(SD)-82] FOR REPROCESSING AND STORAGE

PURPOSE:

To inform the Commission of the staff's intention to send a letter to the Department of Energy indicating no objection to proposed retransfers of spent fuel from Switzerland to the United Kingdom and from Switzerland to France for reprocessing and storage.

DISCUSSION:

The Department of Energy (DOE) has asked for NRC views on the attached requests. The first case involves the retransfer of 112 irradiated fuel assemblies from the Muehleberg nuclear power station in Switzerland to British Nuclear Fuels, plc for reprocessing and storage. The assemblies contain approximately 20,000 kilograms of total uranium, with 165 kilograms of the isotope uranium-235 (enriched to approximately 0.83 percent) and 185 kilograms of plutonium. The second case involves the retransfer of 14 irradiated fuel assemblies from the Muehleberg nuclear power station in Switzerland to the Compagnie Generale des Matières Nucléaires (COGEMA) for reprocessing and storage. The assemblies contain approximately 2,500 kilograms of total uranium, with 21 kilograms of the isotope uranium-235 (enriched to approximately 0.84 percent) and 23 kilograms of plutonium. Any future use of the recovered uranium and plutonium in both cases will be subject to prior U.S. Government consent.

Contact: K. Henderson, OIP/NEMR
415-2337

NOTE: TO BE MADE PUBLICLY AVAILABLE
WHEN THE FINAL SRM IS MADE
AVAILABLE

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The staff notes that the U.S.-EURATOM and U.S.-Switzerland Agreements for Cooperation for Peaceful Uses of Atomic Energy will expire on December 31, 1995, and August 8, 1996, respectively. Efforts to negotiate successor agreements are continuing. Should there be a lapse in one or both Agreements, the U.S. would be unable to approve additional retransfers of U.S.-controlled spent fuel to EURATOM states or Switzerland until new agreements are in force. DOE has advised the staff that they would withdraw any previously-granted consents applying to fuel or other materials which had not yet been transferred between EURATOM and Switzerland.

Taking into account the nonproliferation commitments of the countries involved, where the reprocessing will occur, and the fact that the derived plutonium may not be used or retransferred by the United Kingdom to Switzerland or France to Switzerland or any other state without explicit U.S. consent, approval of these cases will not result in a significant increase of the risk of proliferation, whether or not the U.S.-EURATOM and U.S.-Switzerland negotiations are successfully concluded by the time the current agreements expire.

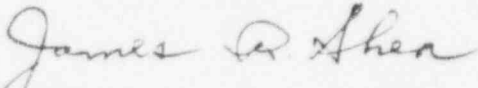
The requests fall within the category of retransfers which the Commission, by Staff Requirements Memorandum of June 30, 1992, authorized the staff to process using negative consent SECY papers (SECY-92-204, dated June 3, 1992).

The staff believes that the proposed retransfers meet all statutory requirements, are consistent with U.S. policy, and would not be inimical to U.S. common defense and security. These cases involve no material changes in circumstances from those existing for the last similar retransfer from Switzerland to the U.K. or France for reprocessing, for which the NRC indicated no objection. Accordingly, the staff finds no basis for the NRC to object to the request. However, the staff will request DOE to advise Switzerland that U.S. approvals must be withdrawn at the end of this year if the retransfers have not been completed and a new U.S.-EURATOM agreement is not in force.

The Office of the Executive Director for Operations concurs and Office of the General Counsel has no legal objection.

RECOMMENDATION:

That the Commission note that it is the staff's intention to send a letter to the Department of Energy indicating no objection to the transfers. The letter will be sent ten days from the date of this paper unless instructed otherwise by the Commission.


for Carlton R. Stoiber, Director
Office of International programs

Attachments:
see next page

Attachments:

1. 11/3/94 DOE Memo ETFei to RDHauber
w/enclosures
2. 11/22/94 DOE Memo ETFei to RDHauber
w/enclosures
3. Proposed Response to DOE

SECY NOTE: In the absence of instructions to the contrary, SECY will notify the staff on Thursday, February 2, 1995, that the Commission, by negative consent, assents to the action proposed in this paper.

DISTRIBUTION:

Commissioners
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OPA
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EDO
SECY

ATTACHMENT 1



Department of Energy

Washington, DC 20585

#971

NOV 3 1994

MEMORANDUM

TO: Mr. Randolph Williams, Director
Office of Technology and Policy Analysis
Department of Commerce
OTPA Room 4069A
Washington, D.C. 20230

Defense Nuclear Agency
Arms Control & Test Limitation Division
6801 Telegraph Rd.
Alexandria, Va. 22310-3398
Attn: OPAC (Major Drew Fisher)

Mr. Robin DeLaBarre
OES/NEC
Department of State
Washington, D.C. 20520

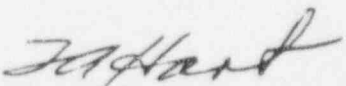
Mr. Michael D. Rosenthal
U.S. Arms Control & Disarmament Agency
NWC/INA, Room 4678
Washington, D.C. 20451

Mr. Ronald D. Hauber ✓
Office of International Programs
Nuclear Regulatory Commission
Washington, D.C. 20555

SUBJECT: Request for ~~Subsequent Arrangements~~ Under the NNPA of 1978

Enclosed for your review is a draft Federal Register notice concerning a proposed subsequent arrangement, as well as an analysis and a copy of the incoming request. We would appreciate your ~~comments~~ **within 20 days.**

RTD/EU(SD)-81

f 
Edward T. Fei
Acting Director
International and Regional
Security Division
Office of Arms Control
and Nonproliferation

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DEPARTMENT OF ENERGY

Office of Arms Control and Nonproliferation

PROPOSED SUBSEQUENT ARRANGEMENT

Pursuant to Section 131 of the Atomic Energy Act of 1954, as amended (42 U.S.C. 2160), notice is hereby given of a proposed "subsequent arrangement" under the Additional Agreement for Cooperation between the Government of the United States of America and the European Atomic Energy Community (EURATOM) Concerning Peaceful Uses of Atomic Energy, as amended, and the Agreement for Cooperation between the Government of the United States of America and the Government of Switzerland Concerning Civil Uses of Atomic Energy, as amended.

The subsequent arrangement would give approval, which must be obtained under the above-mentioned agreements, for the following transfer of special nuclear materials of United States origin, or of special nuclear materials produced through the use of materials of United States origin, as follows: Switzerland to the United Kingdom for the purpose of reprocessing 112 irradiated fuel assemblies containing approximately 20,000 kilograms of uranium and containing 165 kilograms of the isotope uranium-235 (enriched to approximately 0.83%) and 185 kilograms of plutonium from the Muhleberg nuclear power station. This subsequent arrangement is designated as RTD/EU(SD)-81.

The United States has received assurance from the Government of Switzerland that the recovered uranium and plutonium will be stored in the United Kingdom, and will not be transferred from the United Kingdom, nor put to any use, without the prior consent of the United States Government.

In accordance with Section 131 of the Atomic Energy Act of 1954, as amended, it has been determined that this subsequent arrangement will not be inimical to the common defense and security.

This subsequent arrangement will take effect no sooner than fifteen days after the date of publication of this notice and after fifteen days of continuous session of the Congress, beginning the day after the date on which the reports required by section 131(b)(1) of the Atomic Energy Act of 1954, as amended (42 U.S.C. 2160), are submitted to the Committee on Foreign Affairs of the House of Representatives and the Committee on Foreign Relations of the Senate. The two time periods referred to above shall run concurrently.

Issued in Washington, D.C. on _____.

Edward T. Fei
Acting Director
International and Regional
Security Division
Office of Arms Control
and Nonproliferation

ANALYSIS OF RETRANSFER OF SPECIAL NUCLEAR MATERIAL

Prepared by

International and Regional Security Division
Office of Arms Control and Nonproliferation
Office of Nonproliferation and National Security
United States Department of Energy

Proposed Transferor:

Bernische Kraftwerke AG-Muhleberg

Proposed Transferee:

The Government of the United Kingdom on behalf of the
European Atomic Energy Community Supply Agency

Origin of the enriched uranium:

United States Department of Energy Contract UESD002, UESD105 and UESD201

TABLE OF CONTENTS

	Page
I. <u>INTRODUCTION</u>	1
II. <u>SYNOPSIS OF THE PROPOSED RETRANSFER</u>	1
III. <u>POLICY OF THE EXECUTIVE BRANCH</u>	1
IV. <u>EVALUATION OF THE PROPOSED RETRANSFER</u>	2
V. <u>CONCLUSION</u>	3

Annex A: MB-#10 Request for Approval

Annex B: Section 127 and 128 of the Atomic Energy Act of 1954, as amended

Annex C: Section 131 of the Atomic Energy Act of 1954, as amended

Annex D: Safeguards Implementation

I. INTRODUCTION

The Department of Energy has received a request from the Government of Switzerland that the United States approve the retransfer of U.S.-origin spent fuel assemblies from the nuclear power plant Muhleberg in Switzerland to the United Kingdom for reprocessing and storage of the separated uranium and plutonium.

The proposed retransfer is a "subsequent arrangement" as defined in section 131a(2) of the Atomic Energy Act of 1954, as amended. As required by section 131a(1), the proposed retransfer will be analyzed herein to determine whether the arrangement will be "inimical to the common defense and security." It will also be analyzed with regard to other relevant provisions of the Atomic Energy Act of 1954, as amended.

II. SYNOPSIS OF THE PROPOSED RETRANSFER

The following materials are included in the proposed retransfer of spent nuclear fuel:

From Kernkraftwerk Muhleberg AG	
Fuel Type and Quality	112 BWR Assemblies
Total U	20,000 Kgs
U-235	165 Kgs
U-235 Isotope Content	0.83 %
Produced Pu	185 Kgs
Shipping Dates	March 1995 - August 1996

The utility proposes that the irradiated fuel assemblies, now at the reactor site in Switzerland, be transferred to British Nuclear Fuels, plc. in the United Kingdom for chemical reprocessing and recovery of uranium and plutonium. The recovered uranium and plutonium will be retained by British Nuclear Fuels, plc. at its plant. In accordance with arrangements with Switzerland, any future transfer or use of the recovered uranium and plutonium will be subject to the prior consent of the U.S. Government.

III. POLICY OF THE EXECUTIVE BRANCH

The policy of the United States on nonproliferation was outlined by President Clinton on September 27, 1993. In particular, he stated that:

The United States does not encourage the civil use of plutonium and, accordingly, does not itself engage in plutonium reprocessing for either nuclear power or nuclear explosive purposes. The United States, however, will maintain its existing commitments regarding the use of plutonium in civil nuclear programs in Western Europe and Japan.

IV. EVALUATION OF THE PROPOSED RETRANSFER

The proposed retransfer has been reviewed to determine whether it satisfies the statutory criteria in section 127 and 128 of the Atomic Energy Act of 1954, as amended, and we conclude that the criteria are satisfied. (See Annex B).

As required by section 131 of the Atomic Energy Act, with the concurrence of the Department of State, and in consultation with the Arms Control and Disarmament Agency, the Nuclear Regulatory Commission, and the Departments of Commerce and Defense, the Department of Energy has considered whether the proposed retransfer will result in significant increase of the risk of proliferation beyond that which existed at the time that approval was requested and has considered whether there would be timely warning "of any diversion well in advance of the time at which the non-nuclear-weapon state could transform the diverted material into a nuclear explosive device."

Together with the Department of State, we have concluded that, taking into account the nonproliferation commitments of the countries involved, where the reprocessing will occur, and the fact that the derived plutonium may not be used or retransferred by the United Kingdom to Switzerland or any other state without explicit U.S. consent, this approval will not result in a significant increase of the risk of proliferation.

More specifically, and with regard to the question of proliferation risk, the plutonium separated in the reprocessing facility will remain in the United Kingdom until it is disposed of in accordance with terms that are acceptable to the United States. In cases such as this, the United States has been controlling retransfers within the European Community of separated special nuclear material by a commitment from the non-European Atomic Energy Community shipping country that:

- o The spent fuel will be retained by the reprocessor until it may be reprocessed and that, thereafter, the recovered special nuclear material will be retained by the reprocessor subject to the direction of the shipper.
- o Any direction by the shipper to the reprocessor for the transfer or use of the recovered special nuclear material will be subject to the prior approval of the United States.

In the subject case, Switzerland has assured the United States that it agrees to the above conditions.

In addition to the above-mentioned commitments by Switzerland, under the terms of the U.S.-European Atomic Energy Community Agreement for Cooperation, the prior approval of the United States would be required for any transfer of the produced material to a country outside European Atomic Energy Community. Such a transfer would constitute a new subsequent arrangement pursuant to section 131 of the Atomic Energy Act and, as such, would have to be considered on its own merits. Moreover, such approval will only be granted under terms consistent with the provisions of the Act, including section 131.

Further, a number of other factors were considered in this case that are relevant to the judgment that the proposed retransfer will not result in a significant increase in the risk of proliferation. The United Kingdom has evidenced a cooperative attitude in fostering nonproliferation objectives. For example, it supports International Atomic Energy Agency safeguards, adheres to the Nuclear Supplier's Guidelines, and is a party to the Treaty on the Non-Proliferation of Nuclear Weapons. Switzerland is a member of the International Atomic Energy Agency, is a party to the Treaty on the Non-Proliferation of Nuclear Weapons, adheres to the Nuclear Supplier's Guidelines, and has been cooperative on nonproliferation issues.

V. CONCLUSION

The Department of Energy has consulted with the Department of State on the nonproliferation aspects of this retransfer. The Department of State concurs that U.S. nonproliferation objectives would best be fostered by approving the proposed retransfer.

In summary, it is our view that the terms of the proposed subsequent arrangement satisfy the requirements set forth in sections 127, 128, and 131 of the Atomic Energy Act of 1954, as amended, and will not result in a significant increase in the risk of proliferation. Further detailed discussion of these requirements may be found in Annexes B through D of this analysis.

Accordingly, based on the various factors set forth in this analysis, it is the judgment of the Department of Energy with the concurrence of the Department of State and following consultations with the Arms Control and Disarmament Agency (the Arms Control and Disarmament Agency does not intend to prepare a Nuclear Proliferation Assessment Statement with regard to this case), the Nuclear Regulatory Commission, and the Departments of Defense and Commerce that the proposed "subsequent arrangement" will not be inimical to the common defense and security.

APPROVAL FOR RETRANSFER OF SPECIAL NUCLEAR MATERIAL
OF UNITED STATES ORIGIN

The approval of the United States Department of Energy is hereby requested to the transfer

from SWISS FEDERAL OFFICE OF ENERGY (FOR BERNISCHE KRAFTWERKE AG / BERN)
(Transferor)

to EURATOM SUPPLY AGENCY (FOR BRITISH NUCLEAR FUELS PLC/RISLEY,WARRINGTON)
(Transferee)

of United States supplied special nuclear material in the quantity and meeting the specifications described below (hereinafter called "specified material") which the transferor obtained pursuant to its Agreement for Cooperation for Civil Uses with the United States Government. Material was originally obtained by transferor from US-DOE under Contract Numbers UESD002 / UESD105 / UESD201 and under Export License Number XSNM - 1906

SPECIFIED MATERIAL

(Fill in where applicable)

Fuel Type	Identification Marking, No., etc	Total U (In Grams)	U -235, U-233 or Pu (in Grams)	Isotopic Percent U-235,U-233,or P
112 irradi. BWR TYPE ASSEMBLIES	LY ...	20'000'000	165'000 U-235 185'000 Pu	

The specified material, which is now located at KERNKRAFTWERK MÜHLEBERG will upon approval hereby by the United States Department of Energy be transferred on or about MARCH 1995 TO AUGUST 1996 for use at THE REPROCESSING PLANT OF SELLAFIELD and will be accepted for the following specified purpose : REPROCESSING

The transferor, with the concurrence of the transferee, will notify within 30 days after the aforesaid date the United States Department of Energy of the actual date and quantity of material transferred. It is agreed by the transferor and transferee that as of that date the specified material will cease to be subject to the Agreement for Cooperation and contract indicated above and will be subject to the transferee's Agreement for Cooperation for Civil Uses with the United States Government.

SWISS FEDERAL OFFICE OF ENERGY

EURATOM SUPPLY AGENCY

M. Perinjasuet 94-09-13
(Transferor) (Date)

[Signature] 14 X. 1994
(Transferee) (Date)

Above requested transfer under Article _____ of transferee's Agreement for Cooperation for Civil Uses with the United States Government approved, provided physical transfer is consummated by _____

Director for Nuclear Affairs, International Programs (Date)
(For the United States Department of Energy)

Annex B

Section 127 of the Atomic Energy Act of 1954 as amended

Effective January 1, 1986, Spain and Portugal became members of the European Community and of the European Atomic Energy Community. Also, the November 8, 1958, Agreement for Cooperation between the United States and the European Atomic Energy Community expired December 31, 1985. However, by exchange of notes on December 16 and 17, 1985, the United States and the European Atomic Energy Community, noting that Article V of the Additional Agreement for Cooperation of 1960 incorporates by reference Articles IV, V, VI, XI, XII, XV and Annex B of the November 8, 1958, Agreement for Cooperation, agreed that upon expiration of the November 8, 1958, Agreement on December 31, 1985, the European Atomic Energy Community would hold as subject to the Additional Agreement all materials, equipment, and devices that were subject to the expiring agreement. Thus, the Community has confirmed that all previous U.S. nuclear exports under the expired agreement will continue to be subject to the safeguards and controls described in this analysis.

Section 127(4) provides that the United States may approve a retransfer only if the recipient agrees that the transfer will be subject to the same conditions set forth in that section that would apply to export from the United States in the quoted export criteria. Therefore, the word "export" (or a variation thereof) is equivalent to the word "retransfer" (or a variation thereof). The European Atomic Energy Community has agreed that the material proposed to be retransferred will become subject to the U.S.-European Atomic Energy Community Agreement for Cooperation and, therefore for the purpose of the discussion below, the material is treated under that agreement as if it had been transferred from the United States.

Criterion (1) - Section 127 (1)

"International Atomic Energy Agency safeguards as required by Article III(2) of the Treaty will be applied with respect to any such material or facilities proposed to be exported, to any such material or facilities previously exported and subject to the applicable Agreement for Cooperation, and to any special nuclear material used in or produced through the use thereof."

All of the ten non-nuclear-weapon state members of the European Community and the United Kingdom are parties to the Treaty on the Non-Proliferation of Nuclear Weapons, as Spain deposited its instrument of accession to the Treaty on November 5, 1987. Each of these ten states (Belgium, Denmark, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, and Spain) thus undertook the obligation in Article III(1) of the Treaty on the Non-Proliferation of Nuclear Weapons to accept safeguards of the International Atomic Energy Agency on all nuclear material in all of its peaceful nuclear activities and to enter into an agreement with International Atomic Energy Agency to that effect.

As permitted by Article III(4) of the Treaty on the Non-Proliferation of Nuclear Weapons, those states elected to adhere to a single agreement with the International Atomic Energy Agency (INFCIRC/193). Since as parties to the

Treaty Establishing the European Atomic Energy Community, they had assigned to the European Atomic Energy Community the responsibility and authority to apply safeguards within their territories, the European Atomic Energy Community is also a party to that agreement. The agreement, after approval by the Board of Governors of the International Atomic Energy Agency and the European Community and ratification by each of the then seven non-nuclear-weapon member states, entered into force February 21, 1977. Greece, Spain, and Portugal became parties to this agreement upon entry into the European Atomic Energy Community.

As in the case of all safeguards agreements between the International Atomic Energy Agency and non-nuclear-weapon states pursuant to Article III(1) of the Treaty on the Non-Proliferation of Nuclear Weapons, the agreement with the European Atomic Energy Community and the non-nuclear-weapon member states includes provision for the completion by the parties of "Subsidiary Arrangements", setting forth in detail the manner in which the safeguards procedures called for in the agreement are to be carried out.

International Atomic Energy Agency safeguards as required by Article III(2) of the Treaty on the Non-Proliferation of Nuclear Weapons will be applied to any material and facilities exported to European Atomic Energy Community, to any material and facilities previously exported and subject to the Additional Agreement, and to any special nuclear material used in or produced through the use thereof.

As nuclear-weapon states, France and the United Kingdom are not subject to International Atomic Energy Agency safeguards as required by Article III(2) of the Treaty on the Non-Proliferation of Nuclear Weapons. It is the Executive Branch view that criterion (1) is met with respect to exports to France and the United Kingdom.

In addition, all member states are obligated to accept the European Atomic Energy Community safeguards applied to nuclear material, equipment, and devices subject to the Additional Agreement in each of the member states of the Community, including France and the United Kingdom. Under Article V of the Additional Agreement for Cooperation of 1960, as amended, which incorporates, inter alia, Article XI, XII and Annex B of the November 8, 1958, agreement, European Atomic Energy Community has the responsibility for establishing and implementing a safeguards and control system designed to give maximum assurance that any material supplied by the United States or generated from such supply will be used solely for peaceful purposes ("European Atomic Energy Community Safeguards System"). The Community is bound to consult and exchange experiences with the International Atomic Energy Agency with the objective of establishing a system reasonably compatible with that of the safeguards system of the International Atomic Energy Agency. The European Atomic Energy Community is responsible for establishing and maintaining a mutually (with respect to the United States) satisfactory and effective safeguards and controls system in accordance with stated principles. The European Atomic Energy Community safeguards are applied to material and facilities previously exported and subject to the Additional Agreement and to special nuclear material used in or produced through the use thereof.

France and the United Kingdom, as nuclear weapon states, are not subject to the requirement for safeguards under section 127(1). Nevertheless, both nations have concluded voluntary offers for the application of International Atomic Energy Agency safeguards, under INFCIRC/290 of September 12, 1981 (for France) and INFCIRC/263 of August 14, 1978 (for the United Kingdom).

We would note that the European Atomic Energy Community safeguards system, because of its continuing accountancy and materials control function for the European Atomic Energy Community countries, will remain one of the factors relevant to the judgment of the Executive Branch, under section 126(a)(1), that a proposed export to one of these states will not be inimical to the common defense and security.

Therefore, it is the Executive Branch view that criterion (1) is met with respect to the entire European Atomic Energy Community.

Criterion (2) - Section 127 (2)

"No such material, facilities, or sensitive nuclear technology proposed to be exported or previously exported and subject to the applicable agreement for cooperation, and no special nuclear material produced through the use of such materials, facilities, or sensitive nuclear technology, will be used for any nuclear explosive device or for research on or development of any nuclear explosive device."

The proposed export, and any special nuclear material produced through its use, is to be subject to the Additional Agreement for Cooperation which the Additional Agreement for Cooperation incorporates by reference to Article V. Article XI(1) and (3) of the November 8, 1958, Agreement for Cooperation provides that "no material, including equipment and devices, transferred pursuant to this Agreement" and "no source or special nuclear material utilized in, recovered from, or produced as a result of the use of material, equipment or devices transferred pursuant to this agreement...will be used for atomic weapons, or for research or development of atomic weapons or for any other military purpose." All European Atomic Energy Community member states share the understanding of the United States that the term "atomic weapon" includes any nuclear explosive device. Therefore, we regard their reference under the Additional Agreement for Cooperation to be equivalent to any nuclear explosive device.

Each non-nuclear-weapon state of the Community is a party to the Treaty on the Non-Proliferation of Nuclear Weapons. As such, they are pledged not to manufacture or acquire nuclear explosive devices for any purpose. This no explosive use commitment applies to any material, facilities, and sensitive nuclear technology purposed to be exported or previously exported to such state by the United States and to material used in or produced through the use thereof.

Therefore, it is the Executive Branch view that criterion (2) or its equivalent is met with respect to the Community.

Criterion (3) - Section 127 (3)

"Adequate physical security measures will be maintained with respect to such material or facilities proposed to be exported and to any special nuclear material used in or produced through the use thereof. Following the effective date of any regulations promulgated by the Commission pursuant to section 304(d) of the Nuclear Non-Proliferation Act of 1978, physical security measures shall be deemed adequate if such measures provide a level of protection equivalent to that required by the applicable regulations".

The following states in the European Atomic Energy Community have confirmed maintenance of physical security measures providing as a minimum a level of protection comparable to that set forth in INFCIRC/225/Rev.3 for all nuclear material, equipment, and facilities imported from the United States as well as nuclear material produced through the use of such material or facilities: Belgium, Denmark, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, and the United Kingdom.

France and Germany have provided assurances regarding the maintenance of physical protection at least equal to that defined in Annex B of the Nuclear Supplier Guidelines published by the International Atomic Energy Agency under reference INFCIRC/254, for all nuclear material and installations imported from the United States as well as all nuclear material used in or produced by use of such material and installations. The Department of State, by letter to the Nuclear Regulatory Commission dated October 6, 1978, expressed the view that such an assurance meets the requirements set forth by the Nuclear Regulatory Commission under 10 CFR Part 110.43, pursuant to section 304(d) of the Nuclear Non-Proliferation Act of 1978, in that the levels of protection called for in the Nuclear Supplier Guidelines were derived directly from INFCIRC/225/Rev.3 and were specifically designed to achieve levels of protection consistent with the physical protection measures in INFCIRC/225/Rev.3.

It is the judgment of the Executive Branch that the United Kingdom has established physical security measures which, as a minimum, meet those recommended in the International Atomic Energy Agency's INFCIRC/225/Rev.3, "The Physical Protection of Nuclear Material."

Therefore, it is the view of the Executive Branch that criterion (3) is met.

Criterion (4) - Section 127 (4)

"No such materials, facilities, or sensitive nuclear technology proposed to be exported, and no special nuclear material produced through the use of such material, will be retransferred to the jurisdiction of any other nation or group of nations unless the prior approval of the United States is obtained for such retransfer. In addition to other requirements of law, the United States may approve such retransfer only if the nation or group of nations designated to receive such retransfer agrees that it shall be subject to the conditions required by this section."

Article XI(2) of the November 8, 1958, Agreement for Cooperation, which the Additional Agreement for Cooperation incorporates by reference in Article V, provides that no material (including equipment and devices) may be transferred beyond the control of the European Atomic Energy Community, unless the United States agrees.

Article I bis D of the Additional Agreement for Cooperation provides that special nuclear material produced through the use of U.S.-supplied material may be exported to any nation outside the European Atomic Energy Community or to a group of nations, provided that such nation or group of nations has an appropriate Agreement for Cooperation with the United States or guarantees the peaceful use of the produced material under safeguards acceptable to the European Atomic Energy Community and the United States. The European Atomic Energy Community's interpretation of this language -- as set out in an April 15, 1977, letter from Fernand Spaak, Head of the Delegation of the Commission of the European Communities, to the Department of State -- is that the European Community Supply Agency, prior to any proposed transfer, will consult with the United States to find out whether, in the view of the United States, the proposed recipient of such produced special nuclear material has an Agreement for Cooperation with the United States which is "appropriate".

During discussions with representatives of the European Community held in Washington on November 1, 1978, the European Atomic Energy Community confirmed that material subject to Article I bis D could not be transferred outside of the Community unless the United States agreed that the recipient countries or group of nations had an appropriate Agreement for Cooperation with the United States or safeguards acceptable to both parties.

Therefore, it is the Executive Branch view that, with regard to the proposed export and special nuclear material produced through its use, criterion (4) is met.

With respect to retransfers within the European Atomic Energy Community, it should be noted that the use of the words "group of nations" in criterion (4) makes clear that no retransfer consent right is required within a group of nations under this criterion. With respect to this provision, the Senate report states:

"It should be noted that under the U.S.-European Atomic Energy Community Agreements, the United States does have a right of prior approval on retransfers of certain material outside of the European Atomic Energy Community. It should also be noted that paragraph 4 does not require prior approval with respect to transfers within the European Atomic Energy Community, consistent with United States policy of treating that Community as a single (i.e. simple) entity.

The congressional intent not to require U.S. consent rights for transfers within the European Atomic Energy Community is also clear in section 123a(5) of the Atomic Energy Act, as amended, since it requires that the United States seek a guarantee "by the cooperating party" (which in this case is the European Atomic Energy Community as a whole).

Criterion (5) - Section 127 (5)

"No such material proposed to be exported and no special nuclear material produced through the use of such material will be reprocessed, and no irradiated fuel elements containing such material removed from a reactor shall be altered in form or content, unless the prior approval of the United States is obtained for such reprocessing or alteration."

The purpose of this proposed subsequent arrangement is, of course, reprocessing pursuant to article VII(j) of the 1965 U.S.-Switzerland Agreement for Cooperation. However, European Atomic Energy Community was expressly exempted from criterion (5) by virtue of section 126a(2) of the Act for a period of two years from March 10, 1978, inasmuch as the Department of State notified the Nuclear Regulatory Commission on July 20, 1978, that European Atomic Energy Community has agreed to negotiations with the United States as called for in section 404(a) of the Nuclear Non-Proliferation Act of 1978. Executive Order 12903 extends the duration of the period specified in the first provision to section 126a(2) of the Act of March 10, 1995. However, this exemption does not, of course, affect the rights which the United States has under the U.S.-European Atomic Energy Community Agreements for Cooperation and under the commitments from the non-European Atomic Energy Community shipping country (Switzerland).

Although Portugal and Spain are European Atomic Energy Community members, direct U.S. exports and retransfers of U.S.-origin from outside European Atomic Energy Community are made subject to the existing bilateral agreements with Portugal and Spain. Nuclear material already in Portugal and Spain subject to the bilateral agreements continue to remain subject to those agreements. Those agreements do contain a reprocessing and alteration prior consent rights.

Therefore, in the view of the Executive Branch, criterion (5) or its equivalent is satisfied.

Criterion (6) - Section 127 (6)

"No such sensitive nuclear technology shall be exported unless the foregoing conditions shall be applied to any nuclear material or equipment which is produced or constructed under the jurisdiction of the recipient nation or group of nations by or through the use of any such exported sensitive nuclear technology."

The proposed retransfer does not involve sensitive nuclear technology. Criterion (6), therefore, is not applicable.

Section 128 of the Atomic Energy Act of 1954, as amended

Section 128a(1) of the Atomic Energy Act establishes the following additional criterion: "As a condition of continued U.S. export of source material, special nuclear material, production or utilization facilities, and any sensitive nuclear technology to non-nuclear-weapon states, no such export shall be made unless International Atomic Energy Agency safeguards are

maintained with respect to all peaceful nuclear activities in, under the jurisdiction of, or carried out under the control of such state at the time of the export."

All non-nuclear-weapon states that are members of the European Atomic Energy Community (including Spain) as parties to the Treaty on the Non-Proliferation of Nuclear Weapons have agreed to accept International Atomic Energy Agency safeguards on all their peaceful nuclear activities and have implemented that commitment through their agreement with the International Atomic Energy Agency and European Atomic Energy Community (INFCIRC/193).

Annex C

Section 131 of the Atomic Energy Act of 1954, as amended

This request falls under the definition of a subsequent arrangement in section 131a(2)B of the Atomic Energy Act of 1954, as amended (Act), and requires the concurrence of the Department of State and consultation with the Arms Control and Disarmament Agency, the Nuclear Regulatory Commission, and the Departments of Defense and Commerce. The Arms Control and Disarmament Agency may, if it deems necessary, prepare a Nuclear Proliferation Assessment Statement. None has been necessary for this subsequent arrangement.

Notice of the proposed subsequent arrangement must appear for at least 15 days in the Federal Register before the retransfer is approved, together with the written determination of the Department of Energy that the arrangement will not be inimical to the common defense and security. This determination has been made. The required Federal Register notice has been published. Under section 131b(1) of the Act, this retransfer cannot be approved until the Committee on Foreign Affairs of the United States House of Representatives and the Committee on Foreign Relations of the United States Senate have been provided with a report containing the reasons for entering into the arrangement and a period of 15 days of continuous session has elapsed; provided however, that the Secretary of Energy (by delegation from the President under E.O. 12058) can declare an emergency due to unforeseen circumstances; then the period shall be 15 calendar days.

The applicable provisions of section 131b of the Act stipulate important criteria that must be taken into account prior to entering into any subsequent arrangement for the retransfer for reprocessing of U.S.-supplied special nuclear materials or of special nuclear materials produced through United States assistance. While a distinction is drawn in section 131b(2) and 131b(3) of the Act between facilities which have or have not reprocessed power reactor fuel assemblies or that have or have not been the subject of subsequent arrangements prior to the enactment of the Act, common policy objectives clearly apply to both paragraphs.

These provisions pertain to whether the proposed retransfer, inter alia, will result in a significant increase of the risk of proliferation beyond that which exists at the time that approval is requested.

Annex C

In particular, section 131b(2) of the Act provides that:

"(2) The Secretary of Energy may not enter into any subsequent arrangement for the reprocessing of any such material in a facility which has not processed power reactor fuel assemblies or been the subject of a subsequent arrangement therefore prior to the date of enactment of the Nuclear Non-Proliferation Act of 1978 or for subsequent retransfer to a non-nuclear-weapon state of any plutonium in quantities greater than 500 grams resulting from such reprocessing, unless in his judgment, and that of the Secretary of State, such reprocessing or retransfer will not result in a significant increase of the risk of proliferation beyond that which exists at the time that approval is requested. Among all the factors in making this judgment, foremost consideration will be given to whether or not the reprocessing or retransfer will take place under conditions that will ensure timely warning to the United States of any diversion well in advance of the time at which the non-nuclear-weapon state could transform the diverted material into a nuclear explosive device."

Section 131b(3) of the Act provides that:

"(3) The Secretary of Energy shall attempt to ensure, in entering into any subsequent arrangement for the reprocessing of any such material in any facility that has processed power reactor fuel assemblies or been the subject of a subsequent arrangement therefore prior to the date of enactment of the Nuclear Non-Proliferation Act of 1978 (March 10, 1978), or for the subsequent retransfer to any non-nuclear-weapon state of any plutonium in quantities greater than 500 grams resulting from such reprocessing, that such reprocessing or retransfer shall take place under conditions comparable to those which in his view, and that of the Secretary of State, satisfy the standards set forth in paragraph (2)."

The spent fuel in this case may be reprocessed at the Thermal Oxide Reprocessing Plant facility at the Windscale site in the United Kingdom; therefore, this retransfer will be made under section 131b(2) of the Act.

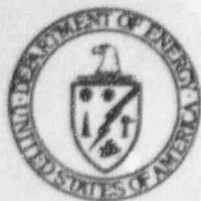
Annex D

Safeguards Implementation

The International Atomic Energy Agency Secretariat has noted in its Annual Report for 1993 that in carrying out the safeguards obligations of the Agency in 1993, the Secretariat did not detect any event which would indicate the diversion of a significant amount of nuclear material or the misuse of facilities, equipment or non-nuclear material which had been placed under Agency safeguards for the manufacture of any nuclear weapon, or for any other military purpose, or for the manufacture of any other nuclear explosive device or for purposes unknown. On the basis of all the information available to the Agency, it is considered reasonable to conclude that, with one exception, the nuclear material and other items which had been placed under Agency safeguards remained in peaceful nuclear activities or were otherwise adequately accounted for. In the case of the Democratic People's Republic of Korea (DPRK), the issues of verification of the initial nuclear material inventory declaration made by it and of the continuous application of full-scope safeguards in the DPRK remained unresolved in 1993. Accordingly, the Agency was unable to conclude that there had been no diversion of nuclear material subject to the safeguards in the DPRK.

The Executive Branch has no reason to believe that the International Atomic Energy Agency Secretariat's report is not valid. In the light of this and other factors associated with the proposed transfer, the Executive Branch believes the framework of commitments, assurances, and safeguards is adequate for the purpose of this proposed transfer.

ATTACHMENT 2



Department of Energy

Washington, DC 20585

NOV 22 1994

MEMORANDUM

TO: Mr. Randolph Williams, Director
Office of Technology and Policy Analysis
Department of Commerce
OTPA Room 4069A
Washington, D.C. 20230

Defense Nuclear Agency
Arms Control & Test Limitation Division
6801 Telegraph Rd.
Alexandria, Va. 22110-2398
Attn: OPAC (Major Drew Fisher)

Mr. Robin DeLaBarre
OES/NEC
Department of State
Washington, D.C. 20520

Mr. Michael D. Rosenthal
U.S. Arms Control & Disarmament Agency
NWC/INA, Room 4678
Washington, D.C. 20451

Mr. Ronald D. Hauber
Office of International Programs
Nuclear Regulatory Commission
Washington, D.C. 20555

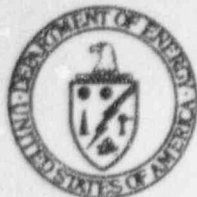
SUBJECT: Request for Subsequent Arrangements Under the NNPA of 1978

Enclosed for your review is a draft Federal Register notice concerning a proposed subsequent arrangement, as well as an analysis and a copy of the incoming request. We would appreciate your views and recommendations in light of the President's September 27, 1993, statement on the nonproliferation policy of the United States within 20 days.

RTD/EU(SD)-82

Edward T. Fei
Acting Director
International and Regional
Security Division
Office of Arms Control
and Nonproliferation





Department of Energy

Washington, DC 20585

NOV 22 1994

Dr. Christoph Von Arb
Science and Technology Counselor
Embassy of Switzerland
2900 Cathedral Avenue, N.W.
Washington, D.C. 20008

Dear Dr. Von Arb:

This is in reference to the MB-10 retransfer approval document concerning the transfer of 14 irradiated fuel assemblies to the Compagnie Generale des Matieres Nucleaires (COGEMA) facility in France from the Muhleberg Nuclear Power Plant. The foregoing MB-10 was signed on behalf of the Government of Switzerland on September 13, 1994.

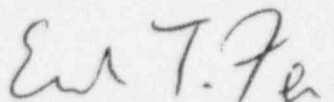
In order to expedite the consideration of this retransfer, it would be extremely helpful if we could receive confirmation from the Government of Switzerland that:

1. The spent fuel would be stored by COGEMA until it is reprocessed and, thereafter, the recovered uranium and plutonium will be retained by COGEMA subject to direction by the above mentioned utility.
2. Any directions by the utility to COGEMA for the retransfer or use of the recovered uranium and plutonium would be subject to the prior approval of the U.S. Government. (Retransfer of these recovered materials outside of Euratom would, of course, be subject to prior U.S. approval in accordance with the applicable agreement for cooperation between the U.S. and Euratom).

It also would be our understanding (in the event of approval) that if prior to actual reprocessing, there are international agreements on new fuel supply arrangements, including reprocessing or other disposition of irradiated fuel, consultation would be held between our governments to determine whether the new arrangements would apply to this fuel. Further in the event the U.S. approves the MB-10, it would not intend to revoke its approval, although it would be possible, of course, for the parties concerned to agree upon new arrangements.



I would appreciate your early advice as to whether these understandings would be acceptable to the Government of Switzerland in the event the MB-10 is approved.



Edward T. Fei
Acting Director
International and Regional
Security Division
Office of Arms Control
and Nonproliferation

DEPARTMENT OF ENERGY

Office of Arms Control and Nonproliferation

PROPOSED SUBSEQUENT ARRANGEMENT

Pursuant to Section 13. of the Atomic Energy Act of 1954, as amended (42 U.S.C. 2160), notice is hereby given of a proposed "subsequent arrangement" under the Additional Agreement for Cooperation between the Government of the United States of America and the European Atomic Energy Community (EURATOM) Concerning Peaceful Uses of Atomic Energy, as amended, and the Agreement for Cooperation between the Government of the United States of America and the Government of Switzerland Concerning Civil Uses of Atomic Energy, as amended.

The subsequent arrangement would give approval, which must be obtained under the above-mentioned agreements, for the following transfer of special nuclear materials of United States origin, or of special nuclear materials produced through the use of materials of United States origin, as follows: Switzerland to France for the purpose of reprocessing 14 irradiated fuel assemblies containing approximately 2,500 kilograms of uranium and containing 21 kilograms of the isotope uranium-235 (enriched to approximately 0.84%) and 23 kilograms of plutonium from the Muhleberg nuclear power station. This subsequent arrangement is designated as RTD/EU(SD)-82.

The United States has received assurance from the Government of Switzerland that the recovered uranium and plutonium will be stored in France, and will not be transferred from France, nor put to any use, without the prior consent of the United States Government.

In accordance with Section 131 of the Atomic Energy Act of 1954, as amended, it has been determined that this subsequent arrangement will not be inimical to the common defense and security.

This subsequent arrangement will take effect no sooner than fifteen days after the date of publication of this notice and after fifteen days of continuous session of the Congress, beginning the day after the date on which the reports required by section 131(b)(1) of the Atomic Energy Act of 1954, as amended (42 U.S.C. 2160), are submitted to the Committee on Foreign Affairs of the House of Representatives and the Committee on Foreign Relations of the Senate. The two time periods referred to above shall run concurrently.

Issued in Washington, D.C. on _____.

Edward T. Fei
Acting Director
International and Regional
Security Division
Office of Arms Control
and Nonproliferation

ANALYSIS OF RETRANSFER OF SPECIAL NUCLEAR MATERIAL

Prepared by

International and Regional Security Division
Office of Arms Control and Nonproliferation
Office of Nonproliferation and National Security
United States Department of Energy

Proposed Transferor:

Bernische Kraftwerke AG-Muhleberg

Proposed Transferee:

The Government of France on behalf of the
European Atomic Energy Community Supply Agency

• Origin of the enriched uranium:

United States Department of Energy Contract UESD002, UESD105 and UESD201

TABLE OF CONTENTS

	Page
I. <u>INTRODUCTION</u>	1
II. <u>SYNOPSIS OF THE PROPOSED RETRANSFER</u>	1
III. <u>POLICY OF THE EXECUTIVE BRANCH</u>	1
IV. <u>EVALUATION OF THE PROPOSED RETRANSFER</u>	2
V. <u>CONCLUSION</u>	3

Annex A: MB-#10 Request for Approval

Annex B: Section 127 and 128 of the Atomic Energy Act of 1954, as amended

• Annex C: Section 131 of the Atomic Energy Act of 1954, as amended

1. INTRODUCTION

The Department of Energy has received a request from the Government of Switzerland that the United States approve the retransfer of U.S.-origin spent fuel assemblies from the nuclear power plant Muhleberg in Switzerland to France for reprocessing and storage of the separated uranium and plutonium.

The proposed retransfer is a "subsequent arrangement" as defined in section 131a(2) of the Atomic Energy Act of 1954, as amended. As required by section 131a(1), the proposed retransfer will be analyzed herein to determine whether the arrangement will be "inimical to the common defense and security." It will also be analyzed with regard to other relevant provisions of the Atomic Energy Act of 1954, as amended.

II. SYNOPSIS OF THE PROPOSED RETRANSFER

The following materials are included in the proposed retransfer of spent nuclear fuel:

From Kernkraftwerk Muhleberg AG	
Fuel Type and Quality	14 BWR Assemblies
Total U	2,500 Kgs
U-235	21 Kgs
U-235 Isotope Content	0.84 %
Produced Pu	23 Kgs
Shipping Dates	April 1995 - August 1996

The utility proposes that the irradiated fuel assemblies, now at the reactor site in Switzerland, be transferred to the Compagnie Generale des Matieres Nucleaires (COGEMA) in France for chemical reprocessing and recovery of uranium and plutonium. The recovered uranium and plutonium will be retained by the Compagnie Generale des Matieres Nucleaires (COGEMA) at its plant. In accordance with arrangements with Switzerland, any future transfer or use of the recovered uranium and plutonium will be subject to the prior consent of the U.S. Government.

III. POLICY OF THE EXECUTIVE BRANCH

The policy of the United States on nonproliferation was outlined by President Clinton on September 27, 1993. In particular, he stated that:

The U.S. will undertake a comprehensive approach to the growing accumulation of fissile material from dismantled nuclear weapons and within civil nuclear programs. Under this approach the U.S. will:

- Seek to eliminate where possible the accumulating of stockpile of highly enriched uranium or plutonium, and to ensure that where these materials already exist they are subject to the highest standards of safety, security, and international accountability.

The United States does not encourage the civil use of plutonium and, accordingly, does not itself engage in plutonium reprocessing for either nuclear power or nuclear explosive purposes. The United States, however, will maintain its existing commitments regarding the use of plutonium in civil nuclear programs in Western Europe and Japan.

IV. EVALUATION OF THE PROPOSED RETRANSFER

The proposed retransfer has been reviewed to determine whether it satisfies the statutory criteria in section 127 and 128 of the Atomic Energy Act of 1954, as amended, and we conclude that the criteria are satisfied. (See Annex B).

As required by section 131 of the Atomic Energy Act, with the concurrence of the Department of State, and in consultation with the Arms Control and Disarmament Agency, the Nuclear Regulatory Commission, and the Departments of Commerce and Defense, the Department of Energy has considered whether the proposed retransfer will result in significant increase of the risk of proliferation beyond that which existed at the time that approval was requested and has considered whether there would be timely warning "of any diversion well in advance of the time at which the non-nuclear-weapon state could transform the diverted material into a nuclear explosive device."

Together with the Department of State, we have concluded that, taking into account the nonproliferation commitments of the countries involved, where the reprocessing will occur, and the fact that the derived plutonium may not be used or retransferred by France to Switzerland or any other state without explicit U.S. consent, this approval will not result in a significant increase of the risk of proliferation.

More specifically, and with regard to the question of proliferation risk, the plutonium separated in the reprocessing facility will remain in France until it is disposed of in accordance with terms that are acceptable to the United States. In cases such as this, the United States has been controlling retransfers within the European Community of separated special nuclear material by a commitment from the non-European Atomic Energy Community shipping country that:

- o The spent fuel will be retained by the reprocessor until it may be reprocessed and that, thereafter, the recovered special nuclear material will be retained by the reprocessor subject to the direction of the shipper.
- o Any direction by the shipper to the reprocessor for the transfer or use of the recovered special nuclear material will be subject to the prior approval of the United States.

In the subject case, Switzerland has assured the United States that it agrees to the above conditions.

In addition to the above-mentioned commitments by Switzerland, under the terms of the U.S.-European Atomic Energy Community Agreement for Cooperation, the prior approval of the United States would be required for any transfer of the produced material to a country outside European Atomic Energy Community. Such a transfer would constitute a new subsequent arrangement pursuant to section 131 of the Atomic Energy Act and, as such, would have to be considered on its own merits. Moreover, such approval will only be granted under terms consistent with the provisions of the Act, including section 131.

Further, a number of other factors were considered in this case that are relevant to the judgment that the proposed retransfer will not result in a significant increase in the risk of proliferation. France has cooperated in fostering nonproliferation objectives. For example, it supports International Atomic Energy Agency safeguards, adheres to the Nuclear Supplier's Guidelines, and is a party to the Treaty on the Non-Proliferation of Nuclear Weapons. Switzerland is a member of the International Atomic Energy Agency, is a party to the Treaty on the Non-Proliferation of Nuclear Weapons, adheres to the Nuclear Supplier's Guidelines, was a founder of the NPT Exporters Committee, and has been cooperative on nonproliferation issues.

V. CONCLUSION

The Department of Energy has consulted with the Department of State on the nonproliferation aspects of this retransfer. This subsequent arrangement will contribute to the accumulation of stockpiles of plutonium in France, a nuclear weapons state. The Department of State believes that U.S. nonproliferation objectives would best be fostered by approving the proposed retransfer.

It is our view that the terms of the proposed subsequent arrangement satisfy the requirements set forth in sections 127, 128, and 131 of the Atomic Energy Act of 1954, as amended, and will not result in a significant increase in the risk of proliferation. Further detailed discussion of these legal requirements may be found in Annexes B and C of this analysis.

Accordingly, based on the various factors set forth in this analysis, it is the judgment of the Department of Energy with the concurrence of the Department of State and following consultations with the Arms Control and Disarmament Agency (the Arms Control and Disarmament Agency does not intend to prepare a Nuclear Proliferation Assessment Statement with regard to this case), the Nuclear Regulatory Commission, and the Departments of Defense and Commerce that the proposed "subsequent arrangement" will not be inimical to the common defense and security.

MB#10

Number RTD/EU(SD)-82
AG/2758

APPROVAL FOR RETRANSFER OF SPECIAL NUCLEAR MATERIAL
OF UNITED STATES ORIGIN

The approval of the United States Department of Energy is hereby requested to the transfer

from SWISS FEDERAL OFFICE OF ENERGY (FOR BERNISCHE KRAFTWERKE AG / BERN)
(Transferor)

to EURATOM SUPPLY AGENCY (FOR COGEMA VELIZY-VILLACOUBLAY, FRANCE)
(Transferee)

of United States supplied special nuclear material in the quantity and meeting the specifications described below (hereinafter called "specified material") which the transferor obtained pursuant to its Agreement for Cooperation for Civil Uses with the United States Government. Material was originally obtained by transferor from US-DOE under Contract Numbers UESD002 / UESD105 / UESD201 and under Export License Number XSNM - 1906

SPECIFIED MATERIAL
(Fill in where applicable)

Identification	Marking, No., etc	Total U (In Grams)	U -235, U-233 or Pu (in Grams)	Isotopic Percent U-235,U-233,or Pu
Fuel Type	LY ...	2'500'000	21'000 U-235 23'000 Pu	
14 irradiated BWR TYPE ASSEMBLIES				

The specified material, which is now located at KERNKRAFTWERK MÜHLEBERG will upon approval hereby by the United States Department of Energy be transferred on or about APRIL 1995 TO AUGUST 1996 for use at THE REPROCESSING PLANT OF LA HAGUE, FRANCE and will be accepted for the following specified purpose : REPROCESSING

The transferor, with the concurrence of the transferee, will notify within 30 days after the aforesaid date the United States Department of Energy of the actual date and quantity of material transferred. It is agreed by the transferor and transferee that as of that date the specified material will cease to be subject to the Agreement for Cooperation and contract indicated above and will be subject to the transferee's Agreement for Cooperation for Civil Uses with the United States Government.

SWISS FEDERAL OFFICE OF ENERGY

EURATOM SUPPLY AGENCY

Peninquet 94-09-13
(Transferor) (Date)

[Signature]
(Transferee) 28/10/94 (Date)

Above requested transfer under Article _____ of transferee's Agreement for Cooperation for Civil Uses with the United States Government approved, provided physical transfer is consummated by _____

Director for Nuclear Affairs, International Programs (Date)
(For the United States Department of Energy)

Annex B

Section 127 of the Atomic Energy Act of 1954 as amended

On November 8, 1958, Agreement for Cooperation between the United States and the European Atomic Energy Community expired December 31, 1985. However, by exchange of notes on December 16 and 17, 1985, the United States and the European Atomic Energy Community, noting that Article V of the Additional Agreement for Cooperation of 1960 incorporates by reference Articles IV, V, VI, XI, XII, XV and Annex B of the November 8, 1958, Agreement for Cooperation, agreed that upon expiration of the November 8, 1958, Agreement on December 31, 1985, the European Atomic Energy Community would hold as subject to the Additional Agreement all materials, equipment, and devices that were subject to the expiring agreement. Thus, the Community has confirmed that all previous U.S. nuclear exports under the expired agreement will continue to be subject to the safeguards and controls described in this analysis.

Section 127(4) provides that the United States may approve a retransfer only if the recipient agrees that the transfer will be subject to the same conditions set forth in that section that would apply to export from the United States in the quoted export criteria. Therefore, the word "export" (or a variation thereof) is equivalent to the word "retransfer" (or a variation thereof). The European Atomic Energy Community has agreed that the material proposed to be retransferred will become subject to the U.S.-European Atomic Energy Community Agreement for Cooperation and, therefore for the purpose of the discussion below, the material is treated under that agreement as if it had been transferred from the United States.

Criterion (1) - Section 127 (1)

"International Atomic Energy Agency safeguards as required by Article III(2) of the Treaty will be applied with respect to any such material or facilities proposed to be exported, to any such material or facilities previously exported and subject to the applicable Agreement for Cooperation, and to any special nuclear material used in or produced through the use thereof."

As a nuclear-weapon state, France is not subject to International Atomic Energy Agency safeguards as required by Article III(2) of the Treaty on the Non-Proliferation of Nuclear Weapons. It is the Executive Branch view that criterion (1) is met with respect to exports to France.

In addition, all member states are obligated to accept the European Atomic Energy Community safeguards applied to nuclear material, equipment, and devices subject to the Additional Agreement in each of the member states of the Community, including France and the United Kingdom. Under Article V of the Additional Agreement for Cooperation of 1960, as amended, which incorporates, *inter alia*, Article XI, XII and Annex B of the November 8, 1958, agreement, the European Atomic Energy Community has the responsibility for establishing and implementing a safeguards and control system designed to give maximum assurance that any material supplied by the United States or generated from such supply will be used solely for peaceful purposes ("European Atomic

Energy Community Safeguards System"). The Community is bound to consult and exchange experiences with the International Atomic Energy Agency with the objective of establishing a system reasonably compatible with that of the safeguards system of the International Atomic Energy Agency. The European Atomic Energy Community is responsible for establishing and maintaining a mutually (with respect to the United States) satisfactory and effective safeguards and controls system in accordance with stated principles. The European Atomic Energy Community safeguards are applied to material and facilities previously exported and subject to the Additional Agreement and to special nuclear material used in or produced through the use thereof.

Criterion (2) - Section 127 (2)

"No such material, facilities, or sensitive nuclear technology proposed to be exported or previously exported and subject to the applicable agreement for cooperation, and no special nuclear material produced through the use of such materials, facilities, or sensitive nuclear technology, will be used for any nuclear explosive device or for research on or development of any nuclear explosive device."

The proposed export, and any special nuclear material produced through its use, is to be subject to the Additional Agreement for Cooperation which the Additional Agreement for Cooperation incorporates by reference to Article V. Article XI(1) and (3) of the November 8, 1958, Agreement for Cooperation provides that "no material, including equipment and devices, transferred pursuant to this Agreement" and "no source or special nuclear material utilized in, recovered from, or produced as a result of the use of material, equipment or devices transferred pursuant to this agreement...will be used for atomic weapons, or for research or development of atomic weapons or for any other military purpose." All European Atomic Energy Community member states share the understanding of the United States that the term "atomic weapon" includes any nuclear explosive device. Therefore, we regard their reference under the Additional Agreement for Cooperation to be equivalent to any nuclear explosive device.

Each non-nuclear-weapon state of the Community is a party to the Treaty on the Non-Proliferation of Nuclear Weapons. As such, they are pledged not to manufacture or acquire nuclear explosive devices for any purpose. This no explosive use commitment applies to any material, facilities, and sensitive nuclear technology purposed to be exported or previously exported to such state by the United States and to material used in or produced through the use thereof.

Therefore, it is the Executive Branch view that criterion (2) or its equivalent is met with respect to the Community.

Criterion (3) - Section 127 (3)

"Adequate physical security measures will be maintained with respect to such material or facilities proposed to be exported and to any special nuclear material used in or produced through the use thereof. Following the effective

date of any regulations promulgated by the Commission pursuant to section 304(d) of the Nuclear Non-Proliferation Act of 1978, physical security measures shall be deemed adequate if such measures provide a level of protection equivalent to that required by the applicable regulations".

France has provided assurances regarding the maintenance of physical protection at least equal to that defined in Annex B of the Nuclear Supplier Guidelines published by the International Atomic Energy Agency under reference INFCIRC/254, for all nuclear material and installations imported from the United States as well as all nuclear material used in or produced by use of such material and installations. The Department of State, by letter to the Nuclear Regulatory Commission dated October 6, 1978, expressed the view that such an assurance meets the requirements set forth by the Nuclear Regulatory Commission under 10 CFR Part 110.43, pursuant to section 304(d) of the Nuclear Non-Proliferation Act of 1978, in that the levels of protection called for in the Nuclear Supplier Guidelines were derived directly from INFCIRC/225/Rev.3 and were specifically designed to achieve levels of protection consistent with the physical protection measures in INFCIRC/225/Rev.3.

Therefore, it is the view of the Executive Branch that criterion (3) is met.

Criterion (4) - Section 127 (4)

"No such materials, facilities, or sensitive nuclear technology proposed to be exported, and no special nuclear material produced through the use of such material, will be retransferred to the jurisdiction of any other nation or group of nations unless the prior approval of the United States is obtained for such retransfer. In addition to other requirements of law, the United States may approve such retransfer only if the nation or group of nations designated to receive such retransfer agrees that it shall be subject to the conditions required by this section."

Article XI(2) of the November 8, 1958, Agreement for Cooperation, which the Additional Agreement for Cooperation incorporates by reference in Article V, provides that no material (including equipment and devices) may be transferred beyond the control of the European Atomic Energy Community, unless the United States agrees.

Article I bis D of the Additional Agreement for Cooperation provides that special nuclear material produced through the use of U.S.-supplied material may be exported to any nation outside the European Atomic Energy Community or to a group of nations, provided that such nation or group of nations has an appropriate Agreement for Cooperation with the United States or guarantees the peaceful use of the produced material under safeguards acceptable to the European Atomic Energy Community and the United States. The European Atomic Energy Community's interpretation of this language -- as set out in an April 15, 1977, letter from Fernand Spaak, Head of the Delegation of the Commission of the European Communities, to the Department of State -- is that the European Community Supply Agency, prior to any proposed transfer, will consult with the United States to find out whether, in the view of the United States, the proposed recipient of such produced special nuclear material has an Agreement for Cooperation with the United States which is "appropriate".

During discussions with representatives of the European Community held in Washington on November 1, 1978, the European Atomic Energy Community confirmed that material subject to Article I bis D could not be transferred outside of the Community unless the United States agreed that the recipient countries or group of nations had an appropriate Agreement for Cooperation with the United States or safeguards acceptable to both parties.

Therefore, it is the Executive Branch view that, with regard to the proposed export and special nuclear material produced through its use, criterion (4) is met.

With respect to retransfers within the European Atomic Energy Community, it should be noted that the use of the words "group of nations" in criterion (4) makes clear that no retransfer consent right is required within a group of nations under this criterion. With respect to this provision, the Senate report states:

"It should be noted that under the U.S.-European Atomic Energy Community Agreements, the United States does have a right of prior approval on retransfers of certain material outside of the European Atomic Energy Community. It should also be noted that paragraph 4 does not require prior approval with respect to transfers within the European Atomic Energy Community, consistent with United States policy of treating that Community as a single (i.e. simple) entity.

The congressional intent not to require U.S. consent rights for transfers within the European Atomic Energy Community is also clear in section 123a(5) of the Atomic Energy Act, as amended, since it requires that the United States seek a guarantee "by the cooperating party" (which in this case is the European Atomic Energy Community as a whole).

Criterion (5) - Section 127 (5)

"No such material proposed to be exported and no special nuclear material produced through the use of such material will be reprocessed, and no irradiated fuel elements containing such material removed from a reactor shall be altered in form or content, unless the prior approval of the United States is obtained for such reprocessing or alteration."

The purpose of this proposed subsequent arrangement is, of course, reprocessing pursuant to article VII(j) of the 1965 U.S.-Switzerland Agreement for Cooperation. However, European Atomic Energy Community was expressly exempted from criterion (5) by virtue of section 126a(2) of the Act for a period of two years from March 10, 1978, inasmuch as the Department of State notified the Nuclear Regulatory Commission on July 20, 1978, that European Atomic Energy Community has agreed to negotiations with the United States as called for in section 404(a) of the Nuclear Non-Proliferation Act of 1978. Executive Order 12903 extends the duration of the period specified in the first provision to section 126a(2) of the Act of March 10, 1995. However, this exemption does not, of course, affect the rights which the United States

has under the U.S.-European Atomic Energy Community Agreements for Cooperation and under the commitments from the non-European Atomic Energy Community shipping country (Switzerland).

Therefore, in the view of the Executive Branch, criterion (5) or its equivalent is satisfied.

Criterion (6) - Section 127 (6)

"No such sensitive nuclear technology shall be exported unless the foregoing conditions shall be applied to any nuclear material or equipment which is produced or constructed under the jurisdiction of the recipient nation or group of nations by or through the use of any such exported sensitive nuclear technology."

The proposed retransfer does not involve sensitive nuclear technology. Criterion (6), therefore, is not applicable.

Section 128 of the Atomic Energy Act of 1954, as amended

Section 128a(1) of the Atomic Energy Act establishes the following additional criterion: "As a condition of continued U.S. export of source material, special nuclear material, production or utilization facilities, and any sensitive nuclear technology to non-nuclear-weapon states, no such export shall be made unless International Atomic Energy Agency safeguards are maintained with respect to all peaceful nuclear activities in, under the jurisdiction of, or carried out under the control of such state at the time of the export."

France is a nuclear-weapons state. Section 128a(1), therefore, is not applicable.

Annex C

Section 131 of the Atomic Energy Act of 1954, as amended

This request falls under the definition of a subsequent arrangement in section 131a(2)B of the Atomic Energy Act of 1954, as amended (Act), and requires the concurrence of the Department of State and consultation with the Arms Control and Disarmament Agency, the Nuclear Regulatory Commission, and the Departments of Defense and Commerce. The Arms Control and Disarmament Agency may, if it deems necessary, prepare a Nuclear Proliferation Assessment Statement. None has been necessary for this subsequent arrangement.

Notice of the proposed subsequent arrangement must appear for at least 15 days in the Federal Register before the retransfer is approved, together with the written determination of the Department of Energy that the arrangement will not be inimical to the common defense and security. This determination has been made. The required Federal Register notice has been published. Under section 131b(1) of the Act, this retransfer cannot be approved until the Committee on Foreign Affairs of the United States House of Representatives and the Committee on Foreign Relations of the United States Senate have been provided with a report containing the reasons for entering into the arrangement and a period of 15 days of continuous session has elapsed; provided however, that the Secretary of Energy (by delegation from the President under E.O. 12058) can declare an emergency due to unforeseen circumstances; then the period shall be 15 calendar days.

The applicable provisions of section 131b of the Act stipulate important criteria that must be taken into account prior to entering into any subsequent arrangement for the retransfer for reprocessing of U.S.-supplied special nuclear materials or of special nuclear materials produced through United States assistance. While a distinction is drawn in section 131b(2) and 131b(3) of the Act between facilities which have or have not reprocessed power reactor fuel assemblies or that have or have not been the subject of subsequent arrangements prior to the enactment of the Act, common policy objectives clearly apply to both paragraphs.

These provisions pertain to whether the proposed retransfer, inter alia, will result in a significant increase of the risk of proliferation beyond that which exists at the time that approval is requested.

Annex C

In particular, section 131b(2) of the Act provides that:

"(2) The Secretary of Energy may not enter into any subsequent arrangement for the reprocessing of any such material in a facility which has not processed power reactor fuel assemblies or been the subject of a subsequent arrangement therefore prior to the date of enactment of the Nuclear Non-Proliferation Act of 1978 or for subsequent retransfer to a non-nuclear-weapon state of any plutonium in quantities greater than 500 grams resulting from such reprocessing, unless in his judgment, and that of the Secretary of State, such reprocessing or retransfer will not result in a significant increase of the risk of proliferation beyond that which exists at the time that approval is requested. Among all the factors in making this judgment, foremost consideration will be given to whether or not the reprocessing or retransfer will take place under conditions that will ensure timely warning to the United States of any diversion well in advance of the time at which the non-nuclear-weapon state could transform the diverted material into a nuclear explosive device."

Section 131b(3) of the Act provides that:

"(3) The Secretary of Energy shall attempt to ensure, in entering into any subsequent arrangement for the reprocessing of any such material in any facility that has processed power reactor fuel assemblies or been the subject of a subsequent arrangement therefore prior to the date of enactment of the Nuclear Non-Proliferation Act of 1978 (March 10, 1978), or for the subsequent retransfer to any non-nuclear-weapon state of any plutonium in quantities greater than 500 grams resulting from such reprocessing, that such reprocessing or retransfer shall take place under conditions comparable to those which in his view, and that of the Secretary of State, satisfy the standards set forth in paragraph (2)."

The spent fuel in this case are to be reprocessed at the Compagnie Generale des Matieres Nucleaires (COGEMA); therefore, this retransfer will be made under section 131b(3) of the Act.

ATTACHMENT 3

D R A F T

Mr. Edward T. Fei
Acting Director
International and Regional Security Division
Office of Arms Control and Nonproliferation
U.S. Department of Energy
Washington, DC 20585

Dear Mr. Fei:

SUBJECT: RTD/EU(SD)-81 and RTD/EU(SD)-82

In response to your memoranda of November 3 and 22, 1994 the Nuclear Regulatory Commission (NRC) has reviewed the proposed subsequent arrangements to transfer, in RTD/EU(SD)-81, 112 irradiated fuel assemblies containing approximately 20,000 kilograms of total uranium, with 165 kilograms of the isotope uranium-235 (enriched to approximately 0.83%) and 185 kilograms of plutonium from the Muehleberg nuclear power station in Switzerland to British Nuclear Fuel, plc for reprocessing and storage; and in RTD/EU(SD)-82, 14 irradiated fuel assemblies containing approximately 2,500 kilograms of total uranium, with 21 kilograms of the isotope uranium-235 (enriched to approximately 0.84%) and 23 kilograms of plutonium from the Muehleberg nuclear power station in Switzerland to the Compagnie Generale des Matières Nucléaires (COGEMA) for reprocessing and storage.

We understand that the Swiss government has assured the U.S. that the recovered uranium and plutonium will be stored in the United Kingdom and France, and will not be transferred from the United Kingdom or France, nor put to any use, without the prior consent of the United States Government.

To help avoid any future misunderstanding, the Commission requests that you advise the Swiss authorities that U.S. approval must be withdrawn at the end of this year if the retransfers have not been completed and a new U.S. Agreement for Cooperation with EURATOM is not in place. Subject to this condition, the Commission does not object to the approval of the proposed retransfers.

Sincerely,

Ronald D. Hauber, Director
Division of Nonproliferation, Exports
and Multilateral Relations
Office of International Programs

D R A F T

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Acting Director
International and Regional Security Division
Office of Arms Control and Nonproliferation
U.S. Department of Energy
Washington, DC 20585

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