



## DEPARTMENT OF STATE

Washington, D.C. 20520

SWEDEN

XSNM-1247 &amp; XSNM-1248

BUREAU OF OCEANS AND INTERNATIONAL  
ENVIRONMENTAL AND SCIENTIFIC AFFAIRS

DEC 08 1978

XSNM01247  
70-2775MEMORANDUM FOR JAMES R. SHEA  
NUCLEAR REGULATORY COMMISSION

Enclosed is an Executive Branch analysis covering two requests for issuance of licenses for the export of highly enriched uranium in the form of uranium oxide and uranium hexafluoride to France and the Federal Republic of Germany for fabrication into fuel assemblies and shipment to Sweden. In accordance with P.L. 95-242, the analysis explicitly addresses how the requirements of Section 126 a.(1) of the Atomic Energy Act are met, including the specific criteria of Sections 127 and 128, as well as certain additional factors, envisaged by Section 126 a.(1).

The Executive Branch, on the basis of its review of these applications, has concluded that the requirements of the Atomic Energy Act and P.L. 95-242 have been met and that the proposed exports would not be inimical to the common defense and security of the United States. Moreover, both Sweden and the Community have adhered to the provisions of their Agreements for Cooperation with the United States. Therefore, the Executive Branch recommends issuance of the proposed licenses.

The President has approved the enclosed HEU requests, all of which involve projects and facilities previously supplied by the United States with HEU. Therefore, no new U.S. commitments to supply HEU would be created by their approval. In general, in conformance with policy direction to minimize unirradiated inventories of HEU, the quantity under each export request is limited to that expected to be sufficient for not more than two and one-half years of reactor operation from the time of export, which is considered a reasonable period to allow for export, transportation and fabrication of fuel and maintenance of a fresh fuel reserve sufficient to assure the continuous and economic operation of the reactor.

RECEIVED  
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Deputy Assistant Secretary

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Enclosure:  
As statedEXPORT/IMPORT  
AND  
INTERSTATE

XSNM-1247 and 1248

Country: Sweden

Transaction: The export of 36.48 kilograms of U-235 contained in 39.10 kilograms of uranium in the form of uranium and uranium hexafluoride enriched to 93.3 percent U-235

Applicant: Transnuclear, Inc.

Applicant Reference No: NUK 207/EU/153 77-430/01

Date of Application: December 29, 1977

Purpose of Export

This highly-enriched uranium, 22.055 kilograms in the form of uranium oxide and 17.043 in the form of uranium hexafluoride, will be shipped to NUKEM GmbH, Hanau, FRG, and CERCA, Romans-Sur-Isere, France, for the manufacture of fuel elements for the Studsvik R-2 research reactor at Nykoping, Sweden.

Justification of Need for HEU at This Time

The R-2 reactor was specially designed to produce the high neutron flux necessary in the testing and development of power reactor fuel. This high neutron flux is also required for neutron physics research and for the production of certain radioisotopes. The reactor has been fueled with fully-enriched uranium of U.S. origin since its initial operation in 1959.

Steps Taken to Determine the Possibility of Converting the Facility to Use of Fuel of Lower Enrichment

The facility operator has provided information indicating that the additional HEU requested is required at this time in order to conduct ongoing research and development work. An independent assessment of need conducted by the DOE's Argonne National Laboratory has concluded that the R-2 reactor can most likely be converted to 45% enriched uranium, using current technology, without any significant modification to the reactor, or effect on the research programs being conducted therein. However, since none of the fabricators of plate-type research reactor fuel currently offer fuels containing less than fully enriched uranium such conversion is not feasible at this time. Further, such fuel has not been demonstrated in an operating reactor.



Discussions have been initiated with domestic and foreign fuel fabricators, selected foreign agencies, and reactor operators with the aim of establishing a commercial capability for fabrication of less than fully enriched fuel and to facilitate the conversion of research reactors to the use of such fuels, where feasible, as soon as possible after they become commercially available.

## EXPORT LICENSE APPLICATION ANALYSIS

### 1. Applicable Agreement for Cooperation

The material covered by the export license application is subject to all of the terms and conditions of the Agreement for Cooperation Between the United States and Sweden as amended. This fact has been confirmed by letter from the Embassy of Sweden, a copy of which follows the description of the transaction. The Agreement, as amended, entered into force on September 15, 1966.

Sweden has adhered to all provisions of this agreement with the United States.

The intermediate transfer of uranium to France and the Federal Republic of Germany for the manufacture of fuel elements is subject to all of the terms and conditions of the Additional Agreement for Cooperation between the United States and the European Atomic Energy Community (EURATOM), as amended. This was confirmed in a letter from the Delegation of the Commission of the European Communities, a copy of which is enclosed.

The European Atomic Energy Community has adhered to all provisions of this agreement with the United States.



2. Extent to Which Export Criteria Are Met

A. Section 127 Criteria

As provided in Section 127 of the Atomic Energy Act, the following criteria govern exports for peaceful nuclear uses from the United States of source material, special nuclear material, production or utilization facilities, and any sensitive nuclear technology:

Criterion (1)

"IAEA 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."

Sweden is a party to the Nuclear Non-Proliferation Treaty (NPT). A safeguard agreement between Sweden and the IAEA pursuant to the NPT entered into force on May 6, 1975 and under that agreement safeguards are being applied.

Therefore, it is the Executive Branch view that criterion (1) is met with respect to Sweden.

As a nuclear-weapons-state (NWS), France is not subject to IAEA safeguards as required by Article III(2) of the Treaty. Therefore, it is the Executive Branch view that criterion (1) is met with respect to this export to France.

This does not mean, however, that the material proposed for export will not be subject to safeguards while in France. Under Article V of the Additional Agreement for Cooperation of 1960, as amended, which incorporates Article XI, XII and Annex B of the November 8, 1958 Joint Program Agreement, as amended, the Community undertakes the responsibility of establishing and implementing a safeguards and control system designed to give maximum assurance that any material supplied by the US or generated from such supply will be used solely for peaceful purposes ("EURATOM Safeguards System"). The Community is bound to consult and exchange experiences with the IAEA with the objective of establishing a system reasonably compatible with that of the latter. The Community is responsible for establishing and maintaining a mutually (with respect to the US) satisfactory and effective safeguards and controls system in accordance with stated principles.

EURATOM safeguards are being applied to material and facilities previously exported and subject to the US-EURATOM Cooperation Agreements and to special nuclear material used in or produced through the use thereof. These agreements require these safeguards to be applied to such material and facilities and to the proposed export and special nuclear material produced through its use.

Furthermore, some -- if not all -- U.S.-supplied source and special nuclear material and special nuclear material generated through the use thereof may be subject to the application of IAEA safeguards under GOV/1875, which came into force on February 13, 1978. This agreement calls for the application of IAEA safeguards, essentially under INFCIRC/153 technical criteria, on source or special fissionable material to be designated by France in facilities or parts thereof within France. This language is somewhat different from the U.S. and U.K. "Voluntary Offers," under which such safeguards will apply on all nuclear facilities, excluding only those facilities associated with activities with direct national security significance. However, a French offer is no more limited than that of the U.K. and the U.S. but that, in practice, a higher proportion of material in France may be excluded because of its proportionately larger number of facilities which process materials for both military and civil use.

Insofar as the other NWS, the U.K., is concerned, the considerations are similar to those for France; i.e., criterion (1) does not apply, but Euratom safeguards would be applied, subject to potential verification by the IAEA under the U.K.'s "Voluntary Offer." The seven non-nuclear weapons state (NNWS) members of the European Community and the United Kingdom are parties to the Treaty on the Non-Proliferation of Nuclear Weapons (NPT). Each of those seven states (Belgium, Denmark, the Federal Republic of Germany, Ireland, Italy, Luxembourg and The Netherlands) thus undertook the obligation in Article III(1) of the NPT to accept safeguards of the IAEA on all nuclear material in all of its peaceful nuclear activities and to enter into an agreement with IAEA to that effect.

As permitted by Article III(4) of the NPT, those seven states elected to join in concluding a single agreement with the IAEA (INFCIRC/193). Since they had already assigned to the European Atomic Energy Community (EURATOM) the responsibility and authority to apply



safeguards within their territories (rather than each state establishing and maintaining a national system of accounting for and control of nuclear material), EURATOM is also a party to that agreement. The agreement, after approval by the Board of Governors of the IAEA and the European Community and ratification by each of the seven states, entered into force on February 21, 1977.

As in the case of all safeguards agreements between the IAEA and non-nuclear weapon states pursuant to Article III(I) of the NPT, the agreement with EURATOM and its seven 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. In practice, the Subsidiary Arrangements consist of a general part and, for each of the facilities and locations in which IAEA safeguards are to be applied to nuclear material pursuant to the agreement, individual "Facility Attachments".

The agreement calls for the parties to make every effort to achieve the entry into force of the "Subsidiary Arrangements" within 90 days of the entry into force of the agreement proper. Extension of that period requires agreement among all the parties.

During the period since February 21, 1977, the parties have been negotiating the Subsidiary Arrangements, including Facility Attachments for the 205 facilities and locations which currently come within the purview of the agreement. The general part of the Subsidiary Arrangements has been completed and is in effect. As of September 15, 1978, approximately 145 of the Facility Attachments have entered into force and serve as the basis for IAEA safeguards activities at such facilities. About 15 others had been agreed at the negotiating level and the remainder were under active discussion. The parties have agreed to several extensions of the period for completion of the Subsidiary Arrangements, in accordance with the agreement. The latest such extension runs until February 20, 1979.

The EURATOM/IAEA agreement provides, as does every safeguards agreement with the IAEA pursuant to Article III(1) of the NPT, the right to the IAEA to apply in all non-nuclear weapon states party to such an agreement, the procedures laid down in the agreement, including inspections, as soon as the agreement enters into force, even if the Subsidiary Arrangements are not in force. The agreements do not impose on the IAEA any limitations of access, or frequency, of these in-

inspections prior to completion of Facility Attachments (see e.g.: Articles 71 and 76 of the agreement with EURATOM and its member non-nuclear weapon states, INFCIRC/193). The IAEA has, since the entry into force of the EURATOM/IAEA agreement, increasingly exercised this right to apply procedures and inspections.

The Agency's general approach is to carry out such inspections so as to achieve the same verification goals which they would aim for normally under a Facility Attachment. For example, frequency of visits would be related to timeliness goals. The Agency does, of course, have manpower limitations in this regard, and generally places greater emphasis on facilities involving sensitive material. In some facilities surveillance equipment is employed prior to completion of Facility Attachments, while in other cases inspector presence must be relied upon. In non-nuclear weapon member states of EURATOM, all facilities with the exception of a few research reactors (LEU-fueled or low power) and other research installations have been inspected by IAEA.

In summary, it is clear that each of the non-nuclear weapons state members of EURATOM is a party to the NPT, has fulfilled its obligation under Article III(1) of the NPT, and has an agreement in force with the IAEA in accordance with Article III(4) of that treaty under which the IAEA has clear rights, which are being exercised, to apply safeguards in all relevant facilities.

Therefore it is the Executive Branch view that criterion (1) is met.



## Criterion (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."

As a non-nuclear-weapons state (NNWS) party to the Nuclear Non-Proliferation Treaty (NPT), Sweden has pledged not to develop nuclear explosive devices for any purpose. This pledge applies to any material, facilities and sensitive nuclear technology previously exported to Sweden by the US and subject to the US-Swedish Agreement for Cooperation and to special nuclear material used in or produced through the use thereof.

Since this pledge will apply to the proposed export and to any special nuclear material produced through its use, it is the view of the Executive Branch that criterion (2) is met with respect to Sweden.

Each non-nuclear-weapons state (NNWS) of the Community is a party to the Nuclear Non-Proliferation Treaty (NPT). As such, it is pledged not to develop nuclear explosive devices for any purpose. This pledge applies to any material, facilities and sensitive nuclear technology previously exported to such state by the US and subject to the US-EURATOM Agreements for Cooperation and to special nuclear material used in or produced through the use thereof.

With regard to the two nuclear-weapons state (NWS) of the Community, the UK and France, the proposed export and any special nuclear material produced through its use, if transferred to a NWS member, is subject to the continuing applicability of the US-EURATOM Agreements for Cooperation. Article XI(1) and (3) of the November 8, 1958 Joint Program Agreement, as amended, which is incorporated into the Additional Agreement for Cooperation by virtue of Article V of the Additional Agreement, provide 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." The US--with the support of most other major nuclear supplier states--consistently has taken the position that nuclear explosive devices are "atomic weapons", within

the meaning of this guarantee, regardless of the intended end use of such devices. Both the UK and France, as members of the Nuclear Suppliers Group, have agreed as a matter of national policy to authorize the export of trigger list items "only upon formal governmental assurances from recipients explicitly excluding uses which would result in any nuclear explosive device" (underlining supplied) and have each notified the IAEA to this effect. This undertaking, together with other statements and actions, evidences the fact that both nations equate any nuclear explosive device, regardless of function, as essentially equivalent to an "atomic weapon".

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



### Criterion (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."

It is the judgment of the Executive Branch that each member state of the Community has established physical security measures which, as a minimum, meet those recommended in the IAEA's INFCIRC/225/Rev.1, "The Physical Protection of Nuclear Material".

In addition, Sweden and all states in the Community (except Denmark, Ireland, and Luxembourg) also are members of the Nuclear Suppliers Group and, as such, have agreed to levels of protection consistent with INFCIRC/225/Rev. 1, to be ensured with respect to nuclear materials and equipment and facilities containing these materials, which are detailed in transmission of the Nuclear Suppliers guidelines to the IAEA.

On September 15, 1978, the Swedish Ministry of Foreign Affairs provided the following written generic physical security protection assurance to the U.S. Embassy in Stockholm: "The Ministry is pleased to confirm that the level of physical protection maintained in Sweden fulfills the criteria set forth in IAEA INFCIRC/225/Revision 1. This means that nuclear material within Sweden received from the U.S. and with respect to nuclear material used in or produced through the use of such material and facilities is, and will be, covered as a minimum by a level of protection that well corresponds to that set forth in the said document. This also applies to material already in Sweden."

The French Ministry of Foreign Affairs by note dated September 11, 1978 delivered to U.S. Embassy, Paris, provided the following assurances regarding the maintenance of physical security protection: "The French Government confirms that a level of physical protection at least equal to that defined in Annex B of the Nuclear Supplier Guidelines published by the IAEA under reference INFCIRC/254, will be assured for all nuclear material and installations imported from the United States as well as all nuclear material used or produced by use of such material and installations."

"The French Government can equally confirm that the same level of protection is assured for material and installations already imported from the United States."

The Executive Branch by letter to the Commission dated October 6, 1978 expressed the view that the above-cited French assurance meets the requirement set forth by the Commission under 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 Supplier Guidelines were derived directly from INFCIRC/225/Revision 1 and were specifically designed to achieve levels of protection consistent with the physical protection measures in INFCIRC/225/Revision 1.

As reported to the Commission by Department of State letter dated October 26, 1978, the Government of the Federal Republic of Germany on October 17, 1978 provided the following generic assurance in the form of an Aide Memoire to the U.S. Embassy at Bonn:

"The Federal Government confirms it will -- as in the past -- protect all deliveries of nuclear materials and installations supplied by the United States as well as all materials which are utilized or produced in connection with the exploitation of these materials or installations by physical safeguarding standards at least equalling those published in IAEA INFCIRC 254. This physical safeguarding will be carried out pursuant to the London guidelines."

As the levels of protection called for in the Supplier Guidelines were derived directly from INFCIRC/225/Revision 1 and were specifically designed to achieve levels of protection consistent with the physical protection measures in INFCIRC/225/Revision 1, it is the judgment of the Executive Branch that this assurance meets the requirements set forth by the Commission under 10 CFR Section 110.43, established pursuant to Section 304(d) of the Nuclear Non-Proliferation Act of 1978.

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



During April and October 1975, teams of U.S. Government experts visited Sweden for an exchange of views on physical security, including visits to those facilities or facilities comparable to those at which this highly enriched uranium will be processed, stored and utilized. The fixed site reviews included: (1) security forces, (2) physical barriers, (3) detection and alarm apparatus, (4) communication and response capabilities, (5) access and exit controls, (6) accountability and reporting procedures, and (7) physical security organization. In the area of transportation, procedures and equipment for protecting nuclear materials while in transit were viewed and evaluated.

The teams judged that Sweden's physical protection systems, equipment and procedures for the fixed site facilities, and the procedures and equipment for transportation security adequate to physically protect the material requested in the license applications.

The U.S. Government has thoroughly familiarized itself with the physical security arrangements which will be in effect within France during the period of use of the U.S.-supplied highly enriched uranium to assure that they are adequate to deal with threats of subnational diversion.

During 1975, a team of U.S. Government experts visited France for exchanges of views on physical security. The organizational structures and national regulations of France, as they relate to the physical security of significant quantities of nuclear weapons material, were thoroughly reviewed. Visits were made to a number of major governmental and industrial sites handling such materials. The U.S. team visited the Cadarache Nuclear Research Center and the Marcoule Reactor Facility. In April 1977 the CERCA fabricating facility was revisited by a U.S. representative for review of all physical security measures.

On the basis of these visits, and other exchanges of information regarding physical security at French reactor facilities, the U.S. team concluded that the French physical security program was adequate to deter, prevent or respond to potential attempts to divert material subject to this license application.

Officials of France have clearly stated their intention to keep a vigorous physical security program in force and to make it more effective through ongoing research and development efforts.



During May 1975, a team of U.S. Government experts visited the FRG for an exchange of views on physical security, including visits to those facilities at which the highly enriched uranium requested in this license application is to be processed, stored and utilized. The fixed site reviews included: (1) security forces, (2) barriers, (3) detection and alarm apparatus, (4) communication and response capabilities, (5) access and exit controls, (6) accountability and reporting procedures, and (7) physical security organization. In the area of transportation, procedures and equipment for protecting nuclear materials while in transit were examined.

The U.S. team judged the FRG's physical protection system, procedures and equipment for transportation security adequate to physically protect the material at fixed sites, in transit and the material requested in this license application.

Subsequent to the U.S. team visit, in May 1975 FRG technical personnel met in the United States with U.S. Government representatives (including those of the NRC). At this time, views were exchanged on technical aspects of the respective physical security systems of the two countries, both as they now exist and with regard to future plans including physical security research and development. This exchange provided significant and valuable insights into the FRG's physical security program.

During both of these exchanges, German authorities stated that their physical security program will be kept in force and described long-term plans and development work to improve its effectiveness.

#### Criterion (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 IX A.(3) of the U.S.-Sweden Agreement for Co-operation, as amended, provides that: "No material, including equipment and devices, transferred to the Government of Sweden or to authorized persons under its jurisdiction pursuant to this Agreement or the superseded Agreement will be transferred to unauthorized persons or beyond the jurisdiction of the Government of Sweden except as the Commission may agree to such a transfer to another nation or group of nations, and then only if, in the opinion of the Commission, the transfer of the material is within the scope of an Agreement for Cooperation between the Government of the United States of America and the other nation or groups of nations."

Article VII Bis E. of the Agreement provides that "Special nuclear material produced through the use of material transferred to the Government of Sweden or to authorized persons under its jurisdiction pursuant to Agreement, may be transferred to any other nation or group of nations, provided that such nation or group of nations has an appropriate agreement for cooperation with the United States of America or guarantees that the use of such special nuclear material for peaceful purposes under safeguards acceptable to the Parties."

While it is the U.S. position that this provision accords the United States the equivalent of a consent right the provision does not explicitly stipulate whether U.S. or the other party is responsible for making the determination whether an "appropriate" Agreement for Co-operation exists. (This is more than a pro forma finding that an agreement exists, since the word "appropriate" conveys the intent that the contemplated transfer is fully within the scope of the agreement.)

However, it should be noted that the only way in which special nuclear material covered by this article could be-



come available for such transfer is through Swedish reprocessing of spent fuel which had resulted from the irradiation in Sweden of U.S.-supplied source or special nuclear material. So long as the produced material remains in the spent fuel it is not separable from the US-supplied material, which is subject to the provisions of Article IX A. (3). Sweden presently has no indigenous reprocessing capacity nor is any planned. Furthermore, should a Swedish reprocessing facility be built in the future, any reprocessing of U.S.-origin source or special nuclear material would be subject to U.S. approval under Article VII Bis C. of the Agreement and an unambiguous U.S. approval right over retransfer of recovered generated material could be obtained at that time should Sweden desire to reprocess spent fuel of U.S. origin and the U.S. were otherwise prepared to make the determination required in that article.

It is the Executive Branch view that Article IX A. (3) gives the U.S. a clear right of approval over retransfers of exported materials or facilities, while Article VII Bis E., taken in conjunction with Article VII Bis C., gives the U.S. an equivalent right with respect to produced special nuclear material; therefore, it is the Executive Branch view that criterion (4) is met with respect to Sweden.

Article XI(2) of the November 8, 1958 Joint Program Agreement, as amended, which is incorporated in the Additional Agreement for Cooperation, as amended, by Article V of the latter Agreement, provides that no material (including equipment and devices) may be transferred beyond the control of the EURATOM Community, unless the United States agrees.

Article 1 bis D of the Additional Agreement for Cooperation, as amended, provides that special nuclear material produced through the use of US-supplied material may be exported to any nation outside the 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 Community and the United States. The European Community's interpretation of this language--as set out in an April 15 letter to the Department of State from Fernand Spaak, Head of the Delegation of the Community of the European Communities--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

U.S., 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 Community held in Washington on November 1, 1978, the European Community confirmed that material subject to Article 1 bis D could not be transferred outside of the Community unless the U.S. agreed that the recipient countries or group of nations had an appropriate Agreement for Cooperation with the U.S. 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 transfers within the 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 criteria. With respect to this provision, the Senate export states:

"It should be noted that under the US-EURATOM Agreements, the US does have a right of prior approval on retransfers of certain material outside of the EURATOM Community. It should also be noted that paragraph 4 does not require prior approval with respect to transfers within the EURATOM Community, consistent with US policy of treating that Community as a (single) entity."

The Congressional intent not to require US consent rights for transfers within the Community is also clear in Section 123 a.(5) of the Atomic Energy Act, as amended, since it requires that the US seek a guarantee "by the cooperating party" (which in this case is EURATOM as a whole).

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\* It should be noted that since the US-EURATOM Agreements for Cooperation were authorized in accordance with Section 124 of the Atomic Energy Act, the Commission may continue to issue export licenses until March 10, 1980 pursuant to the authority in the first proviso in Section 126a(2), even if criterion (4) were not met.



Criterion (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."

Article VII Bis C. of the U.S.-Sweden Agreement for Cooperation provides that: "When any special nuclear material received from the United States of America pursuant to this Agreement or the superseded Agreement requires reprocessing, or any irradiated fuel elements containing fuel material received from the United States of America pursuant to this Agreement or the superseded Agreement are to be removed from a reactor and are to be altered in form or content, such reprocessing or alteration shall be performed in facilities acceptable to both Parties upon a joint determination of the Parties that the provisions of Article X may be effectively applied."

As no joint determination under Article VII Bis C. can be made without the agreement of the United States, and since the facilities to be used must be acceptable to the U.S. as one of the Parties, it is the judgment of the Executive Branch that criterion (5) is met with respect to Sweden.

EURATOM is expressly exempted from Criterion (5) by virtue of Section 126 (a)2 of the Act for a period of two years from March 10, 1978, since the Department of State notified the Nuclear Regulatory Commission on July 20, 1978, that EURATOM has agreed to negotiations with the United States as called for in Section 404(a) of the Nuclear Non-Proliferation Act of 1978. However, this exemption in no way derogates from the rights which the United States has under the US-EURATOM Agreements for Cooperation.

Criterion (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 export does not involve the transfer of sensitive nuclear technology. Criterion (6) is, therefore, not applicable.



B. Section 128 Criterion

Section 128 a.(1) of the Atomic Energy Act establishes the following additional criterion: "As a condition of continued United States 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 IAEA 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."

Sweden and the non-nuclear weapons states of the Community including the FRG, are Parties to the NPT and, thus, have agreed to accept IAEA safeguards with respect to all their peaceful nuclear activities. All peaceful nuclear activities of both countries are currently subject to IAEA or EURATOM safeguards.

Therefore it is the Executive Branch view that this criterion is met with respect to Sweden and the non-nuclear weapon states of the European Community.

As France is a nuclear weapons state, this criterion is not applicable to that country.

3. Additional Factors

A. Safeguards Implementation

The IAEA Secretariat has noted in its Special Safeguards Implementation Report that with regard to nuclear material subject to IAEA safeguards, while some deficiencies exist in the system, no diversion of a significant quantity of nuclear material was detected in any of the 45 states in which inspections were carried out. Although recognizing the need to correct existing deficiencies in safeguards implementation, the Executive Branch believes the framework of commitments, assurances, and safeguards is adequate for the purpose of this export.

B. Special Non-Proliferation and Other Foreign Policy Considerations

None.



4. Inimicality Judgment

Based on review of the proposed export it is the judgment of the Executive Branch that the proposed export will not be inimical to the common defense and security, and that the license should be issued.