COMMISSION OF THE EUROPEAN COMMUNITIES

COM(81) 550 final

Brussels, 1st October 1981

AGREEMENT BETWEEN THE UNITED STATES DEPARTMENT OF ENERGY AND THE COMMISSION ON BEHALF OF THE EUROPEAN ATOMIC ENERGY COMMUNITY ON COOPERATION IN THE FIELD OF NUCLEAR MATERIALS SAFEGUARDS RESEARCH AND DEVELOPMENT

(Communication from the Commission to the Council)

COM(81) 550 final

Communication to the Council concerning an Agreement between the United States Department of Energy and the Commission on behalf of the European Atomic Energy Community on Cooperation in the Field of Nuclear Materials Safeguards Research and Development.

- 1. The increasing spread of nuclear materials in circulation and use has become a matter of worldwide concern for both policy makers and public opinion and highlights the importance of safeguards systems that are internationally recognised as being effectively installed and implemented. The Community has been operating its own safeguards system for over twenty years and this has been supported technically by research work undertaken at the Joint Research Centre aimed at not only improving the safeguards applied but also adapting constantly the relevant techniques for changing requirements in this field. In this connection, the Commission concluded with the International Atomic Energy Agency on 7 May, 1981 an Agreement on cooperation in the field of research and development of safeguards. (1).
- 2. At meetings of the Advisory Committee on Programme Management "Fissile Materials Control" in 1978, 1979 and 1980, the Joint Research Centre informed the ACPM of the development of its technical contacts through its programme "Fissile Materials Control" with a number of Laboratories of the United States Department of Energy (US DOE) working in the field of Safeguards R&D.
- 3 This type of cooperation was discussed in particular during the ACPM meeting on 14-15 November, 1978 in relation to the R&D activities and cooperation with the SANDIA Laboratories on the ultrasonic identification techniques of seals. The general opinion of the ACPM was that such cooperation was desirable, but that considerable care had to be taken on the principle of reciprocity and balanced cooperation. Furthermore, the ACPM considered that the emphasis should be placed on the international recognition of the subjects to be included in the cooperation.
- 4. A more detailed presentation of the contacts with these laboratories was made during the ACPM meeting of 11-12 October, 1979: on that occasion the ACPM expressed a general agreement on the way these contacts were developing.
- 5. Following its meeting on 27-28 January, 1981, the ACPM issued a favourable opinion on the formalisation of these contacts in an Agreement with the US DOE (2). The ACPM noted in particular that a sound technical basis existed for the conclusion of a collaboration agreement, that the agreement would regulate exchanges of information and the protection of patents with the US laboratories and the US DOE, and that the cooperation envisaged would be within the existing budget, and would not result in a reduction of the JRC cooperation with the Community nor adversely affect the interest of Member States in the areas of work involved.

⁽¹⁾ Council document 4958/81 (ATO 17) of 3 February, 1981

⁽²⁾ Council document 7967/81 (ATO 54) of 3 July, 1981

- 6. In view of the further development of the Commission contacts, and taking into account the views expressed by the ACPM, in particular its earlier recommendation on the need for balance in the exchange of knowledge between the Commission and the US DOE, the Atomic Questions Group of the Council was informed on 12 May, 1981 of progress in its discussions for such an agreement with the US DOE (1).
- 7. The Commission now informs the Council of its intention to conclude an agreement with the US DOE in conformity with the procedure envisaged by Article 101.(3.) of the EURATOM Treaty. The draft Agreement and annexes are attached to this Communication.

⁽¹⁾ Council document 7019/81 (ATO 45) of 15 May, 1981.

Agreement Between the
UNITED STATES DEPARTMENT OF ENERGY
and the
EUROPEAN ATOMIC ENERGY COMMUNITY
Represented by the
COMMISSION OF THE EUROPEAN COMMUNITIES
in the field of
NUCLEAR MATERIAL SAFEGUARDS RESEARCH AND DEVELOPMENT

The United States Department of Energy (DOE) and the European Atomic Energy Community (EURATOM) represented by the Commission of the European Communities (CEC), hereinafter called the Parties: sharing a desire to cooperate with each other on research, development, testing and evaluation in order to improve safeguards on nuclear material, including nuclear material accounting and control measures; hereby agree as follows:

Article I

The areas of cooperation in nuclear material safeguards research and development may include:

- 1. Development, exchange and testing of destructive and nondestructive assay methods and instrumentation; exchanges of information on performance.
- 2. Preparation and certification of reference materials for destructive and non-destructive assay of fissile materials and refinement of reference techniques for chemical analyses.
- 3. Development, exchange and testing of containment and surveillance methods and equipment; exchanges of information on performance.
- 4. Test of mathematical methods for nuclear materials accounting data evaluation.
- 5. Exchanges of information, equipment and staff.

Other areas of cooperation may be added by mutual agreement.

Article II

- 1. Joint research and development projects, and specific tasks to be undertaken in the areas of cooperation stated in Article I shall be set forth in written annexes to this Agreement as mutually agreed on a case-by-case basis.
- 2. Each Party may loan equipment to the other Party, for such purposes under this Agreement as may be mutually agreeable to the Parties.
- 3. Information may be exchanged between the Parties in the form of technical reports, correspondence, by joint meetings of experts, visits, or in any other form as may be mutually agreeable to the Parties.
- 4. Staff may be exchanged, subject to the provisions of Article VI of this Agreement, as may be mutually agreeable to the Parties.

Article III

- 1. To supervise the execution of this Agreement, the Parties shall each name one individual to act as Coordinator. The Coordinators shall meet to evaluate the status of cooperation under this Agreement at specific times and places to be mutually agreed upon, with the meetings held alternately in the European Communities and in the United States. These evaluations shall include: comprehensive review of each Party's nuclear material safeguards research and development program, status, and plans; assessment of the balance of exchanges under this Agreement; and consideration of measures to ensure a balanced exchange in the design of cooperation under this Agreement.
- 2. Day-to-day management of the cooperation under this Agreement shall be carried out by Managers designated by the Coordinators. The Managers shall agree on specific cooperative activities in their respective areas in accordance with Articles I and II of this Agreement and within policy guidelines set by the Coordinators.

The Managers shall be responsible for the working contacts between the Parties in their respective areas of cooperation.

Article IV

1. General

- A. Each Party may make available to the other information in specified areas of the field of nuclear material safeguards which they have the right to disclose, either in their possession or available to them.
- B. Both Parties agree that information exchanged under this Agreement may be given wide distribution, subject to the need to protect proprietary information exchanged hereunder as provided in this Article and the need to protect patent rights as provided in Article VI.

2. Use of Proprietary Information

A. Definitions

- (i) The term "information" means scientific or technical data, results or methods of research and development, and any other information intended to be provided or exchanged under this Agreement.
- (ii) The term "proprietary information" means information which contains trade secrets or commercial or financial information which is priviledged or confidential, and may only include such information which:
 - a) has been held in confidence by the owner:
 - b) is of a type which is customarily held in confidence by its owner;
 - c) has not been transmitted by the transmitting
 Party to other entities (including the receiving
 Party) except on the basis that it be held in
 confidence; and
 - d) is not otherwise available to the receiving Party from another source without restriction on its further dissemination.

Procedures В.

(i) A Party receiving information pursuant to this Agreement shall respect the privileged nature Any document which contains proprietary thereof. information shall be clearly marked with the following (or substantially similar) restrictive legend:

> "This document contains proprietary information furnished in confidence under an Agreement between the United States Department of Energy and the European Atomic Energy Community, and shall not be disseminated outside these organizations, their contractors, and the concerned departments and agencies of the Governments of the United States and of the Member States of the European Atomic Energy Agency community, without the prior approval of This notice shall be marked on any reproduction hereof, in whole or in part. These limitations shall automatically terminate when this

information is disclosed by the owner without restriction."

- (ii) Proprietary information received in confidence under this Agreement may be disseminated by the receiving Party to:
 - a) persons within or employed by the receiving Party and concerned departments and agencies of the receiving Party that are engaged in safeguards work relating to the subject matter of the proprietary information;
 - b) prime or subcontractors of the receiving Party located within the geographic limits of the receiving Party for use only within the framework of their contracts with the receiving Party in work relating to the subject matter of the proprietary information; provided that any proprietary information so disseminated shall be disseminated pursuant to an agreement of confidentiality and shall be marked with a restrictive legend substantially

identical to that appearing in subparagraph 2 B(i) above. Equipment or materials loaned under this Agreement may embody some proprietary information discernible by a knowledgeable person and such loans shall be treated as dissemination of proprietary information provided that prior written notification of this fact is made to the receiving Party.

- (iii) With the prior written consent of the Party providing proprietary information under this Agreement, the receiving Party may disseminate such proprietary information more widely than otherwise permitted in the foregoing section ii. The Parties shall cooperate with each other in developing procedures for requesting and obtaining prior written consent for such wider dissemination, and each Party shall grant such approval to the extent permitted by its own policies, regulations and laws as the case may be.
- C. Each Party shall exercise its best efforts to ensure that proprietary information received by it under this Agreement is controlled as provided herein. If one of the Parties becomes aware that it will be, or may reasonably be expected to become, unable to meet the non-dissemination provisions of this paragraph, it shall immediately inform the other Party. The Parties shall thereafter consult to define an appropriate course of action.
- D. Information arising from seminars and other meetings arranged under this Agreement and information arising from the attachment of staff, use of facilities and joint projects shall be treated by the Parties according to the principles specified in this article; provided however that no information orally communicated shall be subject to the limited disclosure requirements of this Agreement unless the individual communicating the information places the recipient on notice as to the proprietary character of the information communicated and forthwith confirms the notice in writing.

E. Nothing contained in this Agreement shall preclude the use or dissemination of information received by a Party through arrangements other than those provided for under this Agreement.

Article V

Information transmitted by one Party to the other Party under this Agreement shall be accurate to the best knowledge and belief of the Transmitting Party, but the Transmitting Party does not warrant the suitability of the information transmitted for any particular use or application by the Receiving Party or by any third Party. Information developed jointly by the Parties shall be accurate to the best knowledge and belief of both Parties. Neither Party warrants the accuracy of the jointly developed information or its suitability for any particular use or application by either Party or by any third Party.

Article VI

- With respect to any invention or discovery made or conceived in the course of or under this Agreement:
 - Assigning Party or its contractors) while assigned to another Party (Recipient Party or its contractors) in connection with exchanges of scientists, engineers and other specialists, the Recipient Party will acquire all rights, title and interest in and to any such invention or discovery in all countries, subject to a non-exclusive, irrevocable, royalty-free license in all such countries to the Assigning Party, with the right of the Assigning Party to grant sublicenses under such invention or discovery and any patent application, patent or other protection relating thereto.

- B. If made or conceived by a Party or its contractors as a direct result of employing information which has been communicated to it under this Agreement by another Party or its contractors or communicated during seminars or other joint meetings, the Party making the invention will acquire all rights, title and interest in and to such inventions or discovery in all countries, subject to a grant to the other Party, of a royalty-free, non-exclusive, irrevocable license, with the right of the other Party to grant sublicenses in and to any such invention or discovery and any patent or other protection relating thereto, in all countries.
- C. With regard to exchange of samples, materials, instruments and components for joint testing, the Recipient Party and the Assigning Party will have the same rights as set forth in paragraph 1A.
- D. With regard to specific forms of cooperation other than the forms provided for in subparagraphs A, B and C above, the Parties will provide for appropriate distribution of rights to inventions or discoveries resulting from such cooperation in another Agreement or in an annex to this Agreement in accordance with paragraph 1 of Article II of this Agreement.
- 2. Each Party will, without prejudice to any rights of inventors under its national laws, take all necessary steps to provide the cooperation from its inventors required to carry out the provisions of this Article. Neither of the Parties will assume the responsibility to pay awards or compensation required to be paid to nationals of the other Party according to laws of the country of that other Party.

Article VII

- 1. Whenever an exchange of staff is contemplated under this Agreement, each Party shall ensure that qualified staff are selected for attachment to the other Party.
- 2. Each Party shall be responsible for the salaries, insurance, and allowance to be paid its staff while attached to the other Party unless otherwise agreed.
- 3. Each Party shall pay for the travel and living expenses of its staff while attached to the other Party unless otherwise agreed.
- 4. The host establishment shall use its best efforts to arrange for comparable accommodation for the other Party's staff and their families on a mutually agreeable reciprocal basis.
- 5. Each Party shall provide all necessary assistance to the attached staff (and their families) of the other Party as regards administrative formalities (travel arrangements, etc.).
- 6. The staff of each Party shall conform to the general rules of work and safety regulations in force at the host establishment.

Article VIII

- 1. Information which is classified by either Party for national security reasons, including Restricted Data or Formerly Restricted Data, shall not be exchanged hereunder.
- 2. Information on sensitive nuclear technology shall not be exchanged hereunder.

Article IX

- 1. By mutual agreement, the Parties may transfer equipment to be utilized under the Agreement. In such cases, the sending Party shall supply, as soon as possible, a detailed list of the equipment to be provided together with the relevant specifications and appropriate technical and informational documentation relating to use, maintenance and repair of the equipment.
- 2. Equipment and necessary spare parts supplied by the sending Party for use in joint activities shall remain its property and shall be returned to the sending Party upon completion of the joint activity, unless otherwise agreed.
- 3. The above-mentioned equipment shall be brought into operation at a receiving establishment after mutual agreement between the Coordinators, Managers, or their senior representatives at the interested establishments of the Parties.
- 4. The receiving establishment shall provide the necessary premises for the equipment, shall provide for utilities such as electric power, water and gas, and normally shall provide materials to be tested, in accordance with technical requirements which shall be mutually agreed upon.
- 5. The responsibility and expenses for each transport of equipment and materials between the United States of America and the European Atomic Energy Community by plane or ship to a mutually agreed destination, including responsibility for its safekeeping and insurance en route shall rest with the shipper until the receiver or his agent takes custody of the shipment.
- 6. The equipment provided by the Sending Party for carrying out activities under this Agreement shall be considered to be scientific and as having a non-commercial character, for the purposes of designation and import/export declarations.
- 7. The Receiving Party shall ensure duty-free entry into its territory of any equipment provided pursuant to this Agreement.

Article X

Cooperation under this Agreement shall be in accordance with the laws and regulations of the respective Parties. All questions relating to the Agreement arising during its term shall be settled by the Parties by mutual agreement.

Article XI

Except when otherwise specifically agreed, all costs resulting from cooperation under this Agreement shall be borne by the Party that incurs them. It is understood that the ability of the Parties to carry out their obligations shall be subject to the appropriation of funds by the appropriate governmental authority, where necessary, and to the constitution, laws, and regulations applicable to the Parties.

Article XII

- 1. All questions or disputes related to or arising under this Agreement of activities carried out hereunder should be settled by mutual agreement of the Parties.
- 2. Compensation for damages arising from activities under this Agreement shall be in accordance with the applicable laws of the Parties.

Article XIII

This Agreement shall remain in effect for five (5) years after its effective date unless terminated at the discretion of either Party, upon three (3) months advance notification in writing, and may be extended or amended by mutual consent.

Done in duplicate at	thisday	of, 1981
DEPARTMENT OF ENERGY THE UNITED STATES OF		ENERGY COMMUNITY, THE COMMISSION OF MOUNITIES

Annex I

Joint Research and Development Tasks

- Area I Development, exchange and testing on non-destructive

 assay instrumentation and exchanges of information
 on performance.
 - 1. Field experience with the High-Level Neutron Coincidence Counter in the field.
 - 2. Non-destructive assay of irradiated fuel materials.
 - 3. Measurement of Pu isotopic ratios by gamma-ray spectrometry.
 - 4. Comparison of active assay systems for highly enriched uranium assay (Sb-Be, Active Well Counter, Random Driver).
 - 5. Exchange of information and coordination in the construction of NDA data evaluation microprocessors and software.
 - 6. Evaluation of the use and field test of a bulk and small sample calorimeter for the measurement of Pu material for safeguards purposes.
- Area II Preparation and certification of reference materials for

 destructive and non-destructive assay of fissile materials
 and refinement of reference techniques for chemical analyses.
 - 1. Refinement of nuclear reference techniques for the assay of undiluted inputs of reprocessing plants.
 - 2. Establishment of reference materials for non-destructive assay.
 - Joint certification of reference and test materials for the USA - SALE program.

Area III Development, exchange and test of containment and surveillance equipment and exchange of information on performances.

- 1. Exchange of information on the principle of the ultrasonic signature.
- 2. Vulnerability tests on seals (general purpose, CANDU type and others).
- 3. Development of cap seals for LWR fuels and in field tests.
- 4. Development of general purpose seals.
- 5. Harmonization of read-out equipment for ultrasonic identification.
- 6. In-field reidentification of rivet seals.
- 7. Test of TV cameras and in-field test.

Area IV Test of mathematical methods for nuclear materials accounting data evaluation.

- 1. Joint study of decision analysis techniques.
- 2. Exchange of experience on controlling measurement uncertainties in selected measurement systems.
- 3. Development of modeling and simulation techniques for improved materials accounting.