

COMMISSION OF THE EUROPEAN COMMUNITIES

SEC(94) 1476 final

Brussels, 08.09.1994

COMMUNICATION FROM THE COMMISSION TO THE COUNCIL

CONCLUSION, BY THE COMMISSION, ON BEHALF OF THE EUROPEAN ATOMIC ENERGY COMMUNITY, PURSUANT TO ARTICLE 101 PARAGRAPH 3 OF THE TREATY ESTABLISHING THE EAEC, OF THE INTERNATIONAL ENERGY AGENCY IMPLEMENTING AGREEMENT ON A CO-OPERATIVE PROGRAMME ON NUCLEAR TECHNOLOGY OF FUSION REACTORS WITH THE GOVERNMENT OF CANADA, THE JAPAN ATOMIC ENERGY RESEARCH INSTITUTE (DESIGNATED BY THE GOVERNMENT OF JAPAN) AND THE GOVERNMENT OF THE UNITED STATES OF AMERICA

COMMUNICATION FROM THE COMMISSION TO THE COUNCIL

SUBJECT: CONCLUSION, BY THE COMMISSION, ON BEHALF OF THE EUROPEAN ATOMIC ENERGY COMMUNITY, PURSUANT TO ARTICLE 101 PARAGRAPH 3 OF THE TREATY ESTABLISHING THE EAEC, OF THE INTERNATIONAL ENERGY AGENCY IMPLEMENTING AGREEMENT ON A CO-OPERATIVE PROGRAMME ON NUCLEAR TECHNOLOGY OF FUSION REACTORS WITH THE GOVERNMENT OF CANADA, THE JAPAN ATOMIC ENERGY RESEARCH INSTITUTE (DESIGNATED BY THE GOVERNMENT OF JAPAN) AND THE GOVERNMENT OF THE UNITED STATES OF AMERICA

1. Over the past seventeen years, eight International Energy Agency (IEA) Implementing Agreements (IAs) promoting coordination and sharing of the efforts of the Parties in specific areas in physics and technology relevant to controlled nuclear fusion research were concluded. They concern: 1) superconducting magnets (1977); 2) plasma wall interaction (1977); 3) fusion materials (1980); 4) Tokamaks with divertors (1985); 5) Stellarators (1985); 6) the three large Tokamak facilities (1986); 7) Reversed Field Pinches (1990); 8) environmental, safety and economic aspects of fusion power (1992). Euratom and the US participate in all these IAs, Japan in all except in 4), and Canada in 2), 3) and 8). This kind of multilateral cooperation has proved to be advantageous to all Parties especially given the limited human and financial resources available. The task of coordinating and reviewing the activities covered by these IAs lies with the IEA Fusion Power Coordinating Committee where the Commission is represented.

2. The objective of the proposed IA is to conduct a joint programme on the research and development of nuclear technology of fusion reactors including tritium processing. All the formal provisions of the IA are identical to those of the most recent IA (1992).
As is standard practice in the IEA IAs:

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the Parties (Canada, Euratom, Japan and the US) shall implement the programme by undertaking one or more tasks specified in the corresponding annex to the IA. There is just one Annex to the present IA; the tasks concern joint work on the research and development on tritium breeding blankets, radiation shielding and tritium processing systems of fusion reactors;

control of the programme is vested in the Executive Committee (one member and one alternate member per Party) which normally acts by consensus and does so in all issues declared critical to his Party's interest by any Party's member or alternate member;

each Party shall normally bear the costs it incurs in carrying out the work under the IA. The performance of the Parties under the IA will be subject to the availability of appropriated funds.

3. The cooperative activities that will be carried out under the IA will be technically and financially compatible with the objectives and the budgetary envelope foreseen for controlled thermonuclear fusion in the framework programme of Community activities in the field of research and training for the European Atomic Energy Community (1994-1998) and in the corresponding proposal for a Council Decision adopting a specific programme of research and training (1994-1998) in the field of controlled thermonuclear fusion and therefore will not have financial consequences for the Community budget.
4. At the 54th meeting (November 1992) of the Consultative Committee for the Fusion Programme support was expressed for the conclusion of the IA in particular because of the benefits expected for blanket R&D.
5. The Commission informs the Council of its intention to conclude on behalf of the European Atomic Energy Community, pursuant to Article 101, paragraph 3, of the Treaty establishing the EAEC, the International Energy Agency Implementing Agreement on a Co-operative Programme on Nuclear Technology of Fusion Reactors with the Government of Canada, the Japan Atomic Energy Research Institute (designated by the Government of Japan) and the Government of the United States of America attached herewith.

ANNEX

INTERNATIONAL ENERGY AGENCY

**IMPLEMENTING AGREEMENT
ON A CO-OPERATIVE PROGRAMME ON
NUCLEAR TECHNOLOGY OF FUSION REACTORS**

SEE DOCUMENT SEC(94) 1476 FINAL/2 (AVAILABLE ONLY IN ENGLISH)

COMMISSION OF THE EUROPEAN COMMUNITIES

SEC(94) 1476 final/2

Brussels, 08.09.1994

ANNEX

(Available only in English)

INTERNATIONAL ENERGY AGENCY

IMPLEMENTING AGREEMENT ON A CO-OPERATIVE PROGRAMME ON NUCLEAR TECHNOLOGY OF FUSION REACTORS

INTERNATIONAL ENERGY AGENCY

IMPLEMENTING AGREEMENT
ON A CO-OPERATIVE PROGRAMME ON
NUCLEAR TECHNOLOGY OF FUSION REACTORS

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Annex I

**JOINT WORK ON THE RESEARCH AND DEVELOPMENT ON
TRITIUM BREEDING BLANKET, RADIATION SHIELDING,
AND TRITIUM PROCESSING SYSTEMS OF FUSION
REACTORS**

INTERNATIONAL ENERGY AGENCY

IMPLEMENTING AGREEMENT ON A CO-OPERATIVE PROGRAMME ON NUCLEAR TECHNOLOGY OF FUSION REACTORS

The Contracting Parties

CONSIDERING that the Contracting Parties, being either governments of International Energy Agency ("Agency") countries, governments of other countries invited by the Governing Board of the Agency to be Contracting Parties, international organizations or parties designated by their respective governments, wish to conduct a joint programme on nuclear technology of fusion reactors (the "Programme") as provided in this Agreement;

CONSIDERING that the Contracting Parties which are governments of Agency countries and the governments of Agency countries which have designated Contracting Parties (referred to collectively as the "Governments") have agreed in Article 41 of the Agreement on an International Energy Program (the "I.E.P. Agreement") to undertake national programmes in the areas set out in Article 42 of the I.E.P. Agreement, including energy research and development on controlled thermonuclear fusion;

CONSIDERING that in a meeting of the Governing Board of the Agency on 15th October, 1991, the Governments approved the Programme as a special activity under Article 65 of the I.E.P. Agreement;

CONSIDERING that the Agency has recognized the establishment of the Programme as an important component of international co-operation in the field of fusion power research and development, particularly in view of the importance of nuclear technology of fusion reactors for fusion reactor development;

CONSIDERING that the Contracting Parties recognize that fusion nuclear technology need to be addressed in order for fusion to reach its fullest potential possible;

HAVE AGREED as follows:

*Article 1***OBJECTIVE AND SCOPE**

(a) Objective. The objective of this Agreement is to conduct a joint Programme on the research and development of nuclear technology of fusion reactors including tritium processing. The Programme shall deal with the technology of those components concerned with tritium production and processing, energy extraction and radiation shielding of components and personnel. This includes the first wall, blanket, shield and nuclear elements of plasma-interactive components.

(b) Scope of Activity. The Programme to be carried out by the Contracting Parties within the framework of this Agreement may consist of:

- (1) Exchanges of information on design, materials properties and results of experiments;
- (2) Joint workshops, seminars and symposia;
- (3) Exchanges of scientists, engineers and other technical experts;
- (4) Exchanges of equipment, materials and instrumentation;
- (5) Jointly-performed experiments and studies;
- (6) Joint planning, construction and operation of test facilities;
- (7) Exchanges and joint development of computer codes; and
- (8) Other activities as are mutually agreed.

(c) Method of Implementation. The Contracting Parties shall implement the Programme by undertaking one or more 'Tasks (the "Tasks") within the framework of the accompanying Annex, each of which will be open to participation by two or more Contracting Parties as provided in Article 2 hereof. The Contracting Parties which participate in a particular Task are, for the purposes of that Task, referred to in this Agreement as "Participants".

(d) Task Co-ordination and Co-operation. The Contracting Parties shall co-operate in co-ordinating the work of the various Tasks and shall endeavour, on the basis of an appropriate sharing of burdens and benefits, to encourage co-operation among Participants engaged in the various Tasks with the objective of advancing the research and development activities for all Contracting Parties in the fusion nuclear technology areas.

Article 2

IDENTIFICATION AND INITIATION OF TASKS

(a) *Identification.* The Tasks undertaken by Participants are identified in the Annex to this Agreement. At the time of signing this Agreement, each Contracting Party shall confirm its intention to participate in one or more Tasks by giving the Executive Director of the Agency a Notice of Participation in the relevant Annex. Thereafter, each Task shall be carried out in accordance with the procedures set forth in Articles 2 to 11 hereof, unless otherwise specifically provided in the applicable Annex.

(b) *Initiation of Additional Tasks.* Additional Tasks may be initiated by any Contracting Party according to the following procedures:

- (1) A Contracting Party wishing to initiate a new Task shall present to one or more Contracting Parties for approval a draft Annex, similar in form to the Annex attached hereto, containing a description of the scope of work and conditions of the Task proposed to be performed;
- (2) Whenever two or more Contracting Parties agree to undertake a new Task, they shall submit a draft Annex for approval by the Executive Committee pursuant to Article 3(e)(2) hereof; the approved draft Annex shall become part of this Agreement; Notice of Participation in the Task by Contracting Parties shall be communicated to the Executive Director of the Agency in the manner provided in paragraph (a) above; and
- (3) In carrying out the various Tasks, Participants shall co-ordinate their activities in order to avoid duplication of activities.

Article 3

THE EXECUTIVE COMMITTEE

(a) *Supervisory Control.* Control of the Programme shall be vested in the Executive Committee constituted under this Article.

(b) *Membership.* The Executive Committee shall consist of one member designated by each Contracting Party; each Contracting Party shall also designate one alternate member to serve on the Executive Committee in the event that its designated member is unable to do so.

(c) *Responsibilities.* The Executive Committee shall:

- (1) For the first year of the Programme, and for each year thereafter, acting by unanimity, adopt the specific Tasks constituting the Programme of Work and Budget, if foreseen, for each Annex, together with an indicative programme of work and budget for the following two years, if necessary; the Executive Committee may, as required, make adjustments within the framework of the Programme of Work and Budget;
- (2) Make such rules and regulations as may be required for the sound management of the Programme, including financial rules as provided in Article 6 hereof;
- (3) Carry out the other functions conferred upon it by this Agreement and the Annexes hereto; and
- (4) Consider any matters submitted to it by any of the Operating Agents, by Subtask Leaders or by a Contracting Party.

(d) *Procedures.* The Executive Committee shall carry out its responsibilities in accordance with the following procedures:

- (1) The Executive Committee shall elect every two years a Chairman and one or more Vice-Chairmen;
- (2) The Executive Committee may establish subsidiary bodies such as working groups and rules of procedure as are required for its proper functioning. A representative of the Agency, the alternate members of the Executive Committee, and other individuals as deemed appropriate by the Executive Committee may attend meetings of the Executive Committee and its subsidiary bodies in an advisory capacity;
- (3) The Executive Committee shall meet in regular session at least once each year; a special meeting shall be convened upon the request of any Contracting Party which can demonstrate the need therefor;
- (4) Meetings of the Executive Committee shall be held at such time and in such offices as may be designated by the Executive Committee;
- (5) At least twenty-eight days before each meeting of the Executive Committee, notice of the time, place and purpose of the meeting shall be given to each Contracting Party and to other persons or entities entitled to attend the meeting; notice need not be given to any person or entity otherwise entitled thereto if notice is waived before or after the meeting;
- (6) The quorum for the transaction of business in meetings of the Executive Committee shall be one-half of the members plus one (less any resulting fraction); and

(7) The Chairman of the Executive Committee shall ensure that minutes of each meeting are distributed promptly after the meeting to each person or entity entitled to attend the meeting.

(e) *Voting.*

- (1) Each Contracting Party shall have one vote;
- (2) Where this Agreement requires the Executive Committee to act by unanimity, this shall require the agreement of each member or alternate member present and voting at the meeting at which the decision is taken. The Executive Committee shall adopt decisions and recommendations for which no express voting provision is made in this Agreement by a majority vote of the members or alternate members present and voting, unless a member or alternate member declares that the issue is critical to his interest and requires a unanimous vote; and
- (3) With the agreement of each member or alternate member entitled to act thereon, a decision or recommendation may be made by mail, telefax, telex or cable without the necessity for calling a meeting. Such action shall be taken by unanimity or majority of such members as in a meeting. The Chairman of the Executive Committee shall ensure that all members or alternate members entitled to act thereon are informed of each decision or recommendation made pursuant to this sub-paragraph.

(f) *Reports.* The Executive Committee shall, annually, provide the Agency with reports containing technically substantive, non-proprietary information on the progress of the Programme and its results.

Article 4

THE OPERATING AGENTS AND SUBTASK LEADERS

(a) *Designation.* Participants may designate in the relevant Annex an Operating Agent for the Task, or Subtask Leader for a Subtask, or both as required. A Subtask Leader may be designated for Subtasks where each Participant provides its own resources for its participation without Common Funding Obligations or other transfer of resources among Participants or to Operating Agents. For Subtasks of an Annex requiring transfer of resources among Participants, or if otherwise required, an Operating Agent may be designated. References in this Agreement to the Operating Agent and the Subtask Leader, respectively, shall apply to each Operating Agent and Subtask Leader with respect to the Task and Subtask for which it is responsible.

(b) Scope of Authority to Act on Behalf of Participants. Subject to the provisions of the applicable Annex:

- (1) All legal acts required to carry out the Task shall be performed on behalf of the Participants by the Operating Agent for the Task;
- (2) The Operating Agent shall hold, for the benefit of the Participants, the legal title to all property rights which may accrue to or be acquired for the Task; and
- (3) The Operating Agent shall operate the Task under its supervision and responsibility, subject to this Agreement, in accordance with the law of the country of the Operating Agent.

(c) Reimbursement of Costs. The Executive Committee may provide that expenses and costs incurred by an Operating Agent in acting as such pursuant to this Agreement shall be reimbursed to the Operating Agent from funds made available by the Participants pursuant to Article 6 hereof.

(d) Replacement. Should the Executive Committee wish to replace an Operating Agent or a Subtask Leader with another government or entity, the Executive Committee may, acting by unanimity and with the consent of such government or entity, replace the initial Operating Agent or Subtask Leader. References in this Agreement to the "Operating Agent" or "Subtask Leader" shall include any government or entity appointed to replace the original Operating Agent or Subtask Leader under this paragraph.

(e) Resignation. An Operating Agent or Subtask Leader shall have the right to resign at any time by giving six months written notice to that effect to the Executive Committee, provided that:

- (1) A Participant, or entity designated by a Participant, is at such time willing to assume the duties and obligations of the Operating Agent or Subtask Leader and so notifies the Executive Committee and the other Participants to that effect, in writing, not less than three months in advance of the effective date of such resignation; and
- (2) Such Participant or entity is approved in its function of Operating Agent or Subtask Leader by the Executive Committee, acting by unanimity.

(f) Accounting. An Operating Agent which is replaced or which resigns as Operating Agent shall provide the Executive Committee with an accounting of any monies and other assets which it may have collected or acquired for the Task in the course of carrying out its responsibilities as Operating Agent, in accordance with Article 6(f) hereof.

(g) *Transfer of Rights.* In the event that another Operating Agent is appointed under paragraph (d) or (e) above, the Operating Agent shall transfer to such replacement Operating Agent any property rights which it may hold on behalf of the Task.

(h) *Information and Reports.* The Operating Agent or Subtask Leader shall furnish to the Executive Committee such information concerning the Task as the Committee may request and shall each year submit, not later than two months after the end of the financial year, a report on the status of the Task or the Subtask.

Article 5

ADMINISTRATION AND STAFF

(a) *Administration of Tasks and Subtasks.* The Operating Agent or the Subtask Leader shall be responsible to the Executive Committee for implementing each designated Task or Subtask in accordance with this Agreement, the applicable Annex, and the decisions of the Executive Committee.

(b) *Staff.* It shall be the responsibility of the Operating Agent or the Subtask Leader to retain such staff as may be required to carry out its designated Task or Subtask in accordance with rules determined by the Executive Committee. The Operating Agent or Subtask Leader may also, as required, utilize the services of personnel employed by other Participants (or organizations or other entities designated by Contracting Parties) and made available to the Operating Agent or Subtask Leader by secondment or otherwise. Such personnel shall be remunerated by their respective employers and shall, except as provided in this Article, be subject to their employers' conditions of service. The Contracting Parties shall be entitled to claim the appropriate cost of such remuneration or to receive an appropriate credit for such cost as part of the Budget of the Task, in accordance with Article 6(f)(6) hereof.

Article 6

FINANCE

(a) *Individual Financial Obligations.* Each Contracting Party shall bear the costs it incurs in carrying out the work under this Agreement, including the costs of formulating or transmitting reports to the Participants and of reimbursing its employees for travel and other per diem expenses incurred in connection with work carried out on the respective Tasks, unless provision is made for such costs to be reimbursed from common funds as provided in paragraph (g) below.

(b) *Common Financial Obligations.* Participants wishing to share the costs of a particular Task shall agree in the Task of the appropriate Annex to do so. The apportionment of contributions to such costs (whether in the form of cash, services rendered, intellectual property or the supply of materials) and the use of such contributions shall be governed by the regulations and decisions made pursuant to this Article by the Executive Committee.

(c) *Financial Rules, Expenditure.* The Executive Committee, acting by unanimity, may make such regulations as are required for the sound financial management of each Task including, where necessary:

- (1) Establishment of budgetary and procurement procedures to be used by the Operating Agent in making payments from any common funds which may be maintained by Participants for the account of the Task or in making contracts on behalf of the Participants; and
- (2) Establishment of minimum levels of expenditure for which Executive Committee approval shall be required, including expenditure involving payment of monies to the Operating Agent for other than routine salary and administrative expenses previously approved by the Executive Committee in the budget process.

In the expenditure of common funds, the Operating Agent shall take into account the necessity of ensuring a fair distribution of such expenditure in the Participants' countries, where this is fully compatible with the most efficient technical and financial management of the Task.

(d) *Crediting of Income to Budget.* Any income which accrues from a Task shall be credited to the Budget of that Task.

(e) *Accounting.* The system of accounts employed by the Operating Agent shall be in accordance with accounting principles generally accepted in the country of the Operating Agent and consistently applied.

(f) *Programme of Work and Budget, Keeping of Accounts.* Should Participants agree to maintain common funds for the payment of obligations under a Programme of Work and Budget of the Task, the following provisions shall be applicable unless the Executive Committee, acting by unanimity, decides otherwise:

- (1) The financial year of the Task shall correspond to the financial year of the Operating Agent;
- (2) The Operating Agent shall each year prepare and submit to the Executive Committee for approval a draft programme of work and budget, together with an indicative programme of work and budget for the following two years, not later than three months before the beginning of each financial year. The Subtask Leader shall each year prepare and submit to the Executive Committee

for approval a draft programme of work, together with an indicative programme of work for the following two years, not later than three months before the beginning of each financial year;

- (3) The Operating Agent shall maintain complete and separate financial records which shall clearly account for all funds and property coming into the custody or possession of the Operating Agent in connection with the Task;
- (4) Not later than three months after the close of each financial year, the Operating Agent shall submit to auditors selected by the Executive Committee for audit the annual accounts maintained for the Task; upon completion of the annual audit, the Operating Agent shall present the accounts together with the auditors' report to the Executive Committee for approval;
- (5) All books of account and records maintained by the Operating Agent for a Task shall be preserved for at least three years from the date of termination of the Task; and
- (6) Where provided in the relevant Annex, a Participant supplying services, materials or intellectual property to a Task shall be entitled to a credit, determined by the Executive Committee, acting by unanimity, against its contribution (or to compensation, if the value of such services, materials or intellectual property exceeds the amount of the Participant's contribution); such credits for services of staff shall be calculated on an agreed scale approved by the Executive Committee and include all payroll-related costs.

(g) *Contribution to Common Funds.* Should Participants agree to establish common funds under the annual Programme of Work and Budget for a Task, any financial contributions due from Participants in a Subtask shall be paid to the Operating Agent in the currency of the country of the Operating Agent at such times and upon such other conditions as the Executive Committee, acting by unanimity, shall determine, provided, however, that:

- (1) Contributions received by the Operating Agent shall be used solely in accordance with the Programme of Work and Budget for the Task; and
- (2) The Operating Agent shall be under no obligation to carry out any work on the Task until contributions amounting to at least fifty per cent (in cash terms) of the total due at any one time have been received.

(h) *Ancillary Services.* Ancillary services may, as agreed between the Executive Committee and the Operating Agent, be provided by that Operating Agent for the Operation of a Task and the cost of such services, including overheads connected therewith, may be met from budgeted funds of that Task.

(i) *Taxes.* The Operating Agent shall pay all taxes and similar impositions (other than taxes on income) imposed by national or local governments and incurred by it in connection

with a Task, as expenditure incurred in the operation of that Task under the Budget; the Operating Agent shall, however, endeavour to obtain all possible exemptions from such taxes.

(j) *Audit.* Each Participant shall have the right, at its sole cost, to audit the accounts of any work in a Task for which common funds are maintained, on the following terms:

- (1) The Operating Agent shall provide the other Participants with an opportunity to participate in such audits on a cost-shared basis;
- (2) Accounts and records relating to activities of the Operating Agent other than those conducted for a Task shall be excluded from such audit, but if the Participant concerned requires verification of charges to the Budget representing services rendered to the Task by the Operating Agent, it may, at its own cost, request and obtain an audit certificate in this respect from the auditors of the Operating Agent;
- (3) Not more than one such audit shall be required in any financial year; and
- (4) Any such audit shall be carried out by not more than three representatives of the Participants.

Article 7

INFORMATION AND INTELLECTUAL PROPERTY

It is expected that for each Task agreed to pursuant to this Agreement, the applicable Annex will contain information and intellectual property provisions. The General Guidelines Concerning Information and Intellectual Property, approved by the Governing Board of the Agency on 21st November, 1975, shall be taken into account in developing such provisions.

Article 8

LEGAL RESPONSIBILITY AND INSURANCE

(a) *Liability of Operating Agent.* The Operating Agent shall use all reasonable skill and care in carrying out its duties under this Agreement in accordance with all applicable laws and regulations. Except as otherwise provided in this Article, the cost of all damage to property, and all expenses associated with claims, actions, and other costs arising from work undertaken for a Task shall be charged to the Budget of that Task if the applicable Annex so provides or the Executive Committee, acting by unanimity, so decides.

(b) *Insurance.* The Operating Agent shall propose to the Executive Committee all necessary liability, fire, and other insurance, and shall carry such insurance as the Executive Committee may direct. The cost of obtaining and maintaining insurance shall be charged to the Budget of the Task.

(c) *Compensation for Damages.* Compensation for damages incurred during the implementation of this Agreement, shall be in accordance with the applicable laws of the countries of the Contracting Parties.

Article 9

LEGISLATIVE PROVISIONS

(a) *Accomplishment of Formalities.* Each Participant shall request the appropriate authorities of its country (or its Member States in the case of an international organization) to use their best endeavours, within the framework of applicable legislation, to facilitate the accomplishment of formalities involved in the movement of persons, the importation of materials and equipment and the transfer of currency which shall be required to conduct the Task in which it is engaged.

(b) *Appropriation of Funds and Applicable Laws.* In carrying out this Agreement and its Annex, the Contracting Parties shall be subject to the appropriation of funds by the appropriate governmental authority, where necessary, and to the constitutions, laws and regulations applicable to the respective Contracting Parties, including, but not limited to, laws establishing prohibitions upon the payment of commissions, percentages, brokerage or contingent fees to persons retained to solicit governmental contracts and upon any share of such contracts accruing to governmental officials.

(c) *Decisions of Agency Governing Board.* Participants in the various Tasks shall take account, as appropriate, of the Guiding Principles for Co-operation in the Field of Energy Research and Development, and any modification thereof, as well as other decisions of the Governing Board of the Agency in that field. The termination of the Guiding Principles shall not affect this Agreement, which shall remain in force in accordance with the terms hereof.

(d) *Settlement of Disputes.* Any dispute among the Contracting Parties concerning the interpretation or the application of this Agreement which is not settled by negotiation or other agreed mode of settlement shall be referred to a tribunal of three arbitrators to be chosen by the Contracting Parties concerned who shall also choose the Chairman of the tribunal. Should the Contracting Parties concerned fail to agree upon the composition of the tribunal or the selection of its Chairman, the President of the International Court of Justice shall, at the request of any of the Contracting Parties concerned, exercise those responsibilities. The tribunal shall decide any such dispute by reference to the terms of this Agreement and any applicable laws and regulations, and its decision on a question of fact shall be final and

binding on the Contracting Parties concerned. Operating Agents which are not Contracting Parties shall be regarded as Contracting Parties for the purpose of this paragraph.

Article 10

ADMISSION AND WITHDRAWAL OF CONTRACTING PARTIES

(a) *Admission of New Contracting Parties: Agency Countries.* Upon the invitation of the Executive Committee, acting by unanimity, admission to this Agreement shall be open to the government of any Agency Participating Country (or a national agency, public organization, private corporation, company or other entity designated by such government), which signs or accedes to this Agreement, accepts the rights and obligations of a Contracting Party, and is accepted for participation in at least one Subtask by the Participants in that Subtask, acting by unanimity. Such admission of a Contracting Party shall become effective upon the signature of this Agreement by the new Contracting Party or its accession thereto and its giving Notice of Participation in one or more Annexes and the adoption of any consequential amendments thereto.

(b) *Admission of New Contracting Parties: Other OECD Countries.* The government of any Member of the Organization for Economic Co-operation and Development which does not participate in the Agency may, on the proposal of the Executive Committee, acting by unanimity, be invited by the Governing Board of the Agency to become a Contracting Party to this Agreement (or to designate a national agency, public organization, private corporation, company or other entity to do so), under the conditions stated in paragraph (a) above.

(c) *Admission of New Participants in Tasks.* Any Contracting Party may, with the agreement of the Participants in a Task, acting by unanimity, become a Participant in that Task. Such participation shall become effective upon the Contracting Party's giving the Executive Director of the Agency a Notice of Participation in the appropriate Annex and the adoption of consequential amendments thereto.

(d) *Contributions.* The Executive Committee may require, as a condition to admission to participation, that the new Contracting Party or new Participant shall contribute (in the form of cash, services or materials) an appropriate proportion of the prior budget expenditure of any Task in which it participates.

(e) *Replacement of Contracting Parties.* With the agreement of the Executive Committee, acting by unanimity, and upon the request of a government, a Contracting Party designated by that government may be replaced by another party. In the event of such replacement, the replacement party shall assume the rights and obligations of a Contracting Party as provided in paragraph (a) above and in accordance with the procedure provided therein.

(f) *Withdrawal.* Any Contracting Party may withdraw from this Agreement or from any Task either with the agreement of the Executive Committee, acting by unanimity, or by giving twelve months written Notice of Withdrawal to the Executive Director of the Agency, such Notice to be given not less than one year after the date hereof. The withdrawal of a Contracting Party under this paragraph shall not affect the rights and obligations of the other Contracting Parties; except that, where the other Contracting Parties have contributed to common funds for a Task, their proportionate shares in the Task Budget shall be adjusted to take account of such withdrawal.

(g) *Changes of Status of Contracting Party.* A Contracting Party other than a government or an international organization shall forthwith notify the Executive Committee of any significant change in its status or ownership, or of its becoming bankrupt or entering into liquidation. The Executive Committee shall determine whether any such change in status of a Contracting Party significantly affects the interests of the other Contracting Parties; if the Executive Committee so determines, then, unless the Executive Committee, acting upon the unanimous decision of the other Contracting Parties, otherwise agrees:

- (1) That Contracting Party shall be deemed to have withdrawn from the Agreement under paragraph (f) above on a date to be fixed by the Executive Committee; and
- (2) The Executive Committee shall invite the government which designated that Contracting Party to designate, within a period of three months of the withdrawal of that Contracting Party, a different entity to become a Contracting Party; if approved by the Executive Committee, acting by unanimity, such entity shall become a Contracting Party with effect from the date on which it signs or accedes to this Agreement and gives the Executive Director of the Agency a Notice of Participation in one or more Annexes.

(h) *Failure to Fulfil Contractual Obligations.* Any Contracting Party which fails to fulfil its obligations under this Agreement within sixty days after its receipt of notice specifying the nature of such failure and invoking this paragraph may be deemed by the Executive Committee, acting by unanimity, to have withdrawn from this Agreement.

Article 11

FINAL PROVISIONS

(a) *Term of Agreement.* This Agreement shall enter into force upon signature by two or more Contracting Parties and shall remain in force for an initial period of five years. It may be extended for such additional periods as may be determined by the Executive Committee, acting by unanimity, with the prior agreement of the Governing Board of the Agency. The Executive Committee may, acting by unanimity, terminate this Agreement at any time.

(b) *Legal Relationship of Contracting Parties and Participants.* Nothing in this Agreement shall be regarded as constituting a partnership between any of the Contracting Parties or Participants.

(c) *Termination.* Upon termination of this Agreement, or any Annex to this Agreement, the Executive Committee, acting by unanimity, shall arrange for the liquidation of the assets of the Task. In the event of such liquidation, the Executive Committee shall, so far as practicable, distribute the assets of the Task, or the proceeds therefrom, in proportion to the contributions which the Participants have made from the beginning of the operation of the Task, and for that purpose shall take into account the contributions and any outstanding obligations of former Contracting Parties. Disputes with a former Contracting Party about the proportion allocated to it under this paragraph shall be settled under Article 9(d) hereof, for which purpose a former Contracting Party shall be regarded as a Contracting Party.

(d) *Amendment.* This Agreement may be amended at any time by the Contracting Parties, acting by unanimity, and any Annex to this Agreement may be amended at any time by the Executive Committee, acting by unanimity of the Participants in the Task to which the Annex refers. Such amendments shall come into force in a manner determined by the Executive Committee, acting under the voting rule applicable to the decision to adopt amendments.

(e) *Deposit.* The original of this Agreement shall be deposited with the Executive Director of the Agency and a certified copy thereof shall be furnished to each Contracting Party, to the Operating Agents and to the Subtask Leaders. A copy of this Agreement shall be furnished to each Agency Participating Country and to each Member country of the Organization for Economic Co-operation and Development.

Done at _____, this _____ day of _____, 19____.

For the GOVERNMENT OF CANADA :

For the EUROPEAN ATOMIC ENERGY
COMMUNITY (EURATOM):

For the JAPAN ATOMIC ENERGY RESEARCH INSTITUTE
(designated by the Government of Japan):

For the GOVERNMENT OF THE UNITED STATES OF AMERICA:

*Annex I***JOINT WORK ON THE RESEARCH AND DEVELOPMENT OF TRITIUM BREEDING BLANKET, RADIATION SHIELDING AND TRITIUM PROCESSING SYSTEMS OF FUSION REACTORS****1. Background**

The breeding blanket will be a major component of fusion reactors which will provide for the basic functions of fuel production, energy extraction and radiation shielding. Several concepts are being studied; all use lithium compounds, either in the form of solids or of liquids. Reliable, safe and efficient blanket technology is necessary for the practical application of fusion energy with attractive economic, safety and environmental features.

The design of blankets and their accompanying radiation shields involves computations to adequately predict nuclear parameters such as breeding ratio, nuclear heat deposition and neutron induced radioactivity. These computations require computerized analytical methods and neutron cross-section data bases which must be validated with experiments relevant to fusion neutronics conditions.

Tritium must be extracted from the blanket, purified and converted to a form suitable for use as a fuel in the reactor. The efficiency depends on the type of blanket and the conditions of operation. Tritium processing also includes the handling of tritium in other parts of the fuel cycle. Effective technology for processing tritium in all of the reactor systems is essential.

2. Objective

The objectives of the co-operation between the Participants in the activities to be conducted under this Annex are :

- (1) To determine key technical issues for blanket, shield and tritium processing systems and to formulate research and development programmes which will adequately resolve these issues;
- (2) To conduct experiments at various levels of complexity with models of prototype fusion reactor blanket, shield and tritium processing system components under testing conditions which simulate the most influential features of the realistic fusion operating environment;
- (3) To develop and experimentally verify computational methods and computer codes for predicting the performance of fusion reactor blanket, shield and tritium processing systems under normal and off-normal conditions;

- (4) To develop a technology base for the analysis, design, fabrication, qualification testing, safe operation and maintenance of reliable, safe and efficient blanket, shield and tritium processing systems of fusion reactors.

Means

- (a) *Subtasks.* Co-operation between the Participants in the activities to be conducted under this Annex may include, but is not limited to:

- (1) Solid Breeding Blanket;
- (2) Liquid Breeding Blanket;
- (3) Neutronics;
- (4) Tritium Processing; and
- (5) Other areas as mutually agreed.

- (b) *Scope* Co-operation between the Participants in the activities to be conducted under this Annex may include, but is not limited to the following.

- (1) Exchanges of information
- (2) Joint workshops, seminars and symposia;
- (3) Exchanges of scientists, engineers and other technical experts;
- (4) Exchanges of equipments, materials and instrumentation;
- (5) Jointly-performed experiments which could include joint-use of test facilities, development of test modules and equipments, and analysis of experimental results;
- (6) Joint planning, design, construction and operation of test facilities;
- (7) Joint development of computer codes and diagnostic instrumentation;
- (8) Jointly-performed computer calculations and comparison of computer analysis;
- (9) Exchanges and common development of relevant non-proprietary models and computer codes; and
- (10) Other activities as are mutually agreed.

Assignment of Personnel and Exchanges of Equipment and Material

- (a) The Participants may assign experts to work at the facility sites of the Participants in accordance with agreements between the assigning Participants and the hosting facility, with notification to the Chairman of the Executive Committee. Such agreements shall specify the work plan to be followed by such experts and shall contain appropriate provisions concerning intellectual property which may be generated by the expert.
- (b) Each specialist on assignment may be accompanied by instrumentation or other such equipment necessary as part of his assignment, to assist in data collection or diagnosis of facility operation. The terms and conditions, including information and intellectual property provisions, for transportation and use of such instrumentation and equipment shall be agreed upon in writing between the concerned Participants.
- (c) The procedures to be followed in assigning experts shall be as follows:
- (1) Each Participant desiring to assign an expert shall submit its nomination to the Participant in whose country the facility or the research group's offices are located, as a general rule, at least four months prior to the expected assignment date. Each such nomination shall specify the qualifications of the expert, his work during the assignment, and the length of the assignment;
 - (2) The Participant in whose country the facility or the research group's offices are located shall, as soon as possible, notify the nominating Participant of the acceptability of the assignment. The nominating Participant and the Participant in whose country the facility or the research group's offices are located shall agree upon the specific terms, including intellectual property provisions, applicable to such assignments, after which the assignments may be implemented;
 - (3) The duration of the assignment shall normally be as agreed between the concerned Participants;
 - (4) Publications resulting from theoretical or experimental investigation carried out under this Task and in connection with the assignment shall normally be issued in the form of joint reports of the concerned Participants or individuals who contributed to the investigation;
 - (5) All personnel expenses associated with an assignment shall be borne by the assigning Participant, unless other mutually acceptable arrangements are made. Such expenses shall include, but not be limited to, costs of salary, travel, insurance and living expenses of the assigned personnel. Assigned personnel shall in no way be deemed to be employees of the Contracting Party in whose country the facility or the research group's offices are located by virtue of the assignment.

Assigned personnel shall adhere to all the general and special rules of work and safety regulations and other operating procedures of the Participant in whose country the facility or the research group's offices are located; and

- (6) The transfer of equipment and materials shall be agreed upon in writing between the Participants.

5. Subtask Leaders

The Executive Committee shall appoint Subtask Leaders for the following Subtasks:

- (1) Solid Breeding Blanket;
- (2) Liquid Breeding Blanket;
- (3) Neutronics;
- (4) Tritium Processing.

6. Information and Intellectual Property

- (a) *Executive Committee's Powers.* The publication, distribution, handling, protection and ownership of information and intellectual property provided to or arising from activities conducted under this Task shall be determined by the Executive Committee, acting by unanimity, in conformity with the Agreement.
- (b) *Right to Publish.* Subject only to patent and copyright restrictions, the Participants in this Task shall have the right to publish all information provided to or arising from the activities under this Task, except proprietary information, if any, but they shall not publish it with a view to profit except as the Executive Committee, acting by unanimity, may agree. Neither the Participants nor personnel designated by them shall introduce into the facilities of any of the Participants any proprietary information unless such information is specifically identified and the terms and conditions for its introduction are agreed upon in writing by the concerned Participants.
- (c) *Proprietary Information.* The Participants shall take all necessary measures in accordance with this paragraph, the laws of their respective countries and international law to protect proprietary information. For the purposes of this Task, proprietary information shall mean information of a confidential nature acquired prior to or outside the scope of this Task, such as trade secrets and know-how (for example, computer programmes, design procedures and techniques, chemical composition of materials, or manufacturing methods, processes, or treatments), which is appropriately marked, provided such information:

- (1) Is not generally known or publicly available from other sources;
- (2) Has not previously been made available by the owner to others without obligation concerning its confidentiality; and
- (3) Is not already in the possession of the recipient Participant without obligation concerning its confidentiality.

It shall be the responsibility of each Participant supplying proprietary information to identify the information as such and to ensure that it is appropriately marked.

- (d) *Production of Relevant Information.* The Participants should encourage the governments of all Agency Participating Countries to make available or to identify to a designated Subtask Leader all published or otherwise freely available information known to them that is relevant to the Task. The Participants should notify the designated Subtask Leader of all pre-existing information, and information developed independently of the Task, known to them which is relevant to the Task and which can be made available to the Task without contractual or legal limitations.
- (e) *Information.* Each Participant agrees to provide to the other Participants and to the Subtask Leaders all information utilized in the activities under this Task or which is necessary for practising the results of the activities under this Task. All information developed in connection with and during activities carried out under this Task (arising information) shall be provided to each Participant and to the Subtask Leaders by the Participant performing the work, subject only to the need to retain information concerning patentable inventions in confidence until appropriate action can be taken to protect the rights to such inventions in accordance with paragraph (f) below. Reports containing arising information and pre-existing information necessary for and used in the activities under this Task, including proprietary information in accordance with paragraphs (b) and (c) above, shall be provided to the Subtask Leaders and to the Participants by the Participant performing the work.
- (f) *Information Regarding Inventions.* Each Subtask Leader shall provide summary reports of work performed under the Subtask and arising information therefrom, other than proprietary information, if any, to the Executive Committee. Information regarding inventions on which patent protection is to be obtained by the Participants shall not be published or publicly disclosed by the other Participants, or the Subtask Leaders until a patent application has been filed, provided, however, that this restriction on publication or disclosure shall not extend beyond six months from the date of receipt of such information. It shall be the responsibility of the inventing Participant to appropriately mark reports which disclose inventions that have not been appropriately protected by the filing of a patent application.

(g) *Licensing of Inventions.* With respect to any invention or discovery made or conceived in the course of or under this Task by personnel of one Participant (the Assigning Participant) or its contractors while assigned to the other Participant (the Recipient Participant) or its contractors in connection with exchanges (other than assignment of experts) of scientists, engineers and other specialists:

- (1) The Recipient Participant shall acquire all right, title and interest in and to any such invention or discovery in its own country and in third countries, subject to a non-exclusive, irrevocable, royalty-free licence in all such countries to the Assigning Participant, its government and the nationals of its country designated by it; and
- (2) The Assigning Participant shall acquire all right, title and interest in and to such invention or discovery in its own country, subject to a non-exclusive, irrevocable, royalty-free licence to the Recipient Participant, its government and the nationals of its country designated by it.

Each Participant also agrees to license such invention or discovery to all Agency Participating Countries on reasonable terms and conditions for use in their own country in order to meet their energy needs. Appropriate disposition of rights to inventions or other intellectual property made or created by experts on assignment shall be included in the relevant personnel assignment agreement.

(h) *Copyright.* The Subtask Leaders or each Participant for its own work under this Task may take appropriate measures necessary to protect copyrightable material generated under the activities under this Task. Copyrights obtained shall be the property of that Participant or Subtask Leaders, provided, however, that Participants may reproduce and distribute such material, but shall not publish it with a view to profit.

(i) *Inventors and Authors.* Each Participant shall, without prejudice to any rights of inventors or authors under its national laws, take all necessary steps to provide the co-operation from its inventors and authors required to carry out the provisions of this paragraph. Each Participant shall assume the responsibility to pay awards or compensation required to be paid to its employees according to the laws of its country.

(j) *Determination of "National".* The Executive Committee may establish guidelines to determine what constitutes a "national" of a Participant provided, however, in recognition of the fact that all fusion power research and development Programmes of the individual Member States of the European Atomic Energy Community (EURATOM), Sweden and Switzerland are carried out jointly in the framework of EURATOM, and that EURATOM acts on behalf of itself and its fusion power research and development associated

national organizations in the EURATOM Member States and Sweden, the countries referred to in this paragraph shall, with respect to EURATOM, be understood to be the countries of the Member States of EURATOM, Sweden and Switzerland.

- (k) *Instrumentation and Equipment.* The information and intellectual property provisions governing instrumentation and equipment shall be set forth in a written agreement between the concerned Participants.

7. *Time Schedule*

This Annex shall enter into force on _____, 19___, and shall remain in force for a period of five years or until termination of the Agreement. It may be extended by agreement of two or more Participants acting in the Executive Committee and taking into account any recommendation of the Agency's Committee on Energy Research and Technology concerning the term of this Annex. Extensions shall apply only to those Participants who agree to the extension or who notify the IEA Secretariat of their decision to continue to participate.

8. *Participants*

The Contracting Parties which are Participants in this Annex are the following:

The Government of Canada,
The European Atomic Energy Community (EURATOM),
The Japan Atomic Energy Research Institute,
The Government of the United States of America.