

INTERNATIONAL ENERGY AGENCY

**IMPLEMENTING AGREEMENT
FOR A PROGRAMME OF RESEARCH AND
DEVELOPMENT ON REVERSED FIELD PINCHES**

(As Amended to 23 May 2006)

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INTERNATIONAL ENERGY AGENCY

IMPLEMENTING AGREEMENT
FOR A PROGRAMME OF RESEARCH AND
DEVELOPMENT ON REVERSED FIELD PINCHES

(As Amended to 23 May, 2006)

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 take part in the establishment and operation of a Programme of Research and Development on Reversed Field Pinches (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 in controlled thermonuclear fusion;

CONSIDERING that in the Governing Board of the Agency on 3rd December, 1987, the Governments approved the Programme as a special activity under Article 65 of the I.E.P. Agreement;

RECOGNIZING that the Contracting Parties consider the Reversed Field Pinch ("RFP") an important part of the fusion confinement concept development programme;

CONSIDERING that the Agency has recognized the establishment of the Programme as an important component of international co-operation on RFP for research and development;

HAVE AGREED as follows:

Article I

OBJECTIVE AND SCOPE

(a) *Objective.* The objective of the co-operation is to improve the physics and technology base of the RFP concept and enhance the effectiveness and productivity of research and development efforts related to the RFP concept by strengthening co-operation among the Contracting Parties.

(b) *Scope.* The RFP Programme may consist of the following activities:

- (1) Exchange of information and computer codes;
- (2) Exchanges of scientists, engineers and other technical experts;
- (3) Jointly-held workshops, seminars and symposia;
- (4) Exchanges of equipment, materials and instrumentation between the facilities of the Parties;
- (5) Joint planning and co-ordination of experimental programmes;
- (6) Jointly-performed experiments at each other's facilities;
- (7) Joint development and construction of plasma diagnostics and other components;
- (8) Participation in the design, construction and operation of RFP devices;
- (9) Management and operation of large RFP facilities;
- (10) Establishment of data links;
- (11) Other areas as are mutually agreed.

(c) *Method of Implementation.* The Contracting Parties shall implement the co-operation by undertaking one or more tasks (the "Task" or "Tasks") 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 field of RFP.

Article 2

IDENTIFICATION AND INITIATION OF TASKS

(a) *Identification.* The Tasks undertaken by Participants are identified in the Annexes 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 or Annexes, and the Operating Agent for each Task shall give the Executive Director of the Agency a Notice of Acceptance of the Task

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 Annexes 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 and acceptance by the Operating Agent shall be communicated to the Executive Director of the Agency in the manner provided in paragraph (a) above;
- (3) In carrying out the various Tasks, Participants shall co-ordinate their activities in order to further technical progress and to maximize the effective use of their individual and collective resources.

Article 3

THE EXECUTIVE COMMITTEE

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

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

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

- (1) For the first year of the co-operation, and for each year thereafter, review the Programme of Work and Budget, if foreseen, for each Task, together with an indicative programme of work and budget for the following two years, if necessary;
- (2) For the first year of the co-operation, and for each year thereafter, adopt by unanimity a programme of work and budget, if foreseen, for each of those Tasks involving all the Contracting Parties; the Executive Committee may, as required, make adjustments within the framework of the Programme of Work and Budget for these Tasks by unanimity;
- (3) For the first year of the co-operation, and for each year thereafter, adopt for each of those Tasks which do not involve all the Contracting Parties the Programme

- of Work and Budget agreed to by the Contracting Parties involved in each of those Tasks which do not involve all the Contracting Parties;
- (4) Make such rules and regulations as may be required for the sound management of the co-operation, including financial rules as provided in Article 6 hereof;
 - (5) Carry out the other functions conferred upon it by this Agreement and the Annexes hereto; and
 - (6) Consider any matters submitted to it by any of the Operating Agents 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 each year a Chairman and one or more Vice-Chairmen;
- (2) The Executive Committee may establish such subsidiary bodies and rules of procedure as are required for its proper functioning. A representative of the Agency and a representative of each Operating Agent (in its capacity as such) 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 office or 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) When no express voting provision is made in this Agreement, 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);
- (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. If the two members and the alternate member designated by a Contracting Party are unable to attend a meeting of the Executive Committee where a decision or recommendation shall be subject to a vote, they may cast their vote by mail, telex or cable, or other means of electronic transmission. 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.
 - (3) With the agreement of each member or alternate member entitled to act thereon, a decision or recommendation may be made by mail, 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 submit to the IEA:
- (1) As soon as such events occur, notifications of any admissions and withdrawals of Contracting Parties, any changes in the names or status of Contracting Parties, any changes in the members and alternate members of the Executive Committee or of the entity responsible for the operational management of the programme or project, or any amendments to an Implementing Agreement and Annex thereto;
 - (2) Annual Reports on the progress of programmes and projects of the Implementing Agreement and any Annex no later than 31 January of the following year;
 - (3) Notwithstanding Paragraph (2) above, in addition to and with the Annual Report, annually provide the IEA with the following information:
 - (a) the names and contact details of all current Contracting Parties;
 - (b) the names and contact details of all Contracting Parties who may have withdrawn from the Implementing Agreement in the year covered by the Annual Report;
 - (c) the names and contact details of all new Contracting Parties who may have joined the Implementing Agreement in the year covered by the Annual Report;
 - (d) any changes in the names or status of any Contracting Party;

- (e) the names and contact details of the Executive Committee members and the entity responsible for the operational management of the programme or project; and
 - (f) any amendments to the text of this Agreement and any Annex thereto.
- (4) End of Term Reports, which shall include all the information and documentation required by decisions of the CERT then in effect and relating thereto; and
 - (5) At the request of the IEA, any other non-proprietary information as may be requested by the IEA in connection with the IEA's mandate.

Article 4

THE OPERATING AGENTS

(a) *Designation.* Participants shall designate in the relevant Annex an Operating Agent for each Task. References in this Agreement to the Operating Agent shall apply to each Operating Agent with respect to the Task 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 each 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;
- (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 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. References in this Agreement to the "Operating Agent" shall include any government or entity appointed to replace the original Operating Agent under this paragraph.

(e) *Resignation.* An Operating Agent 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 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 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 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 shall furnish to the Executive Committee such information concerning the Task as the Executive 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.

Article 5

ADMINISTRATION AND STAFF

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

(b) *Staff.* It shall be the responsibility of the Operating Agent to retain such staff as may be required to carry out its designated Task in accordance with rules determined by the Executive Committee. The Operating Agent 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 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 this Agreement, including the costs of formulating or transmitting reports 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 appropriate Task 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;
- (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;
- (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 the Task shall be preserved for at least three years from the date of termination of the Task;
- (6) Where provided in the relevant Annex, a Participant supplying services, materials or intellectual property to the 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 Task 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;
- (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 the 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;
- (4) Any such audit shall be carried out by not more than three representatives of the Participants.

Article 7

INFORMATION AND INTELLECTUAL PROPERTY

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 with common funds for a Task shall be charged to the Budget of that Task; such costs and expenses arising from other work undertaken for a Task shall be charged to the Budget of that Task if the Task 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 Annexes, 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.* Notwithstanding Article 7 of the Framework for International Energy Technology Co-operation, adopted by the IEA Governing Board on 3 April, 2003, the Framework shall apply, and be an integral part of, this Agreement from the date of entering into force of this Amendment. A copy of the Framework is attached as Exhibit A to this Implementing Agreement.

(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: OECD Member Countries.* Upon the invitation of the Executive Committee, acting by unanimity, admission to this Agreement shall be open to the government of any OECD Member 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 Task by the Participants in that Task, 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. OECD Non-Member Countries.* The government of any country which is not a Member of the Organisation for Economic Co-operation and Development may, on the proposal of the Executive Committee, acting by unanimity, and, where required, with the approval of the Committee for Energy Research and Technology, be invited 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 Task 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.* The Agreement shall remain in force for an initial period of ten years from the date hereof. It may be extended for additional periods not greater than 5 years as may be determined by the Executive Committee acting by unanimity with the prior approval of the Governing Board of the Agency.

(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 or Tasks. 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 and to the Operating Agents. A copy of this Agreement shall be furnished to each Agency Participating Country and to each Member country of the Organisation for Economic Co-operation and Development.

Done this 3rd day of April, 1990.
(As Amended to 23 May, 2006)

LIST OF CONTRACTING PARTIES

The EUROPEAN ATOMIC ENERGY COMMUNITY (EURATOM)	03.04.90
The GOVERNMENT OF JAPAN	15.05.90
The UNITED STATES DEPARTMENT OF ENERGY (replaced by The Government of the United States of America; then again by the United States Department of Energy)	03.04.90

EXHIBIT A

IEA FRAMEWORK FOR INTERNATIONAL ENERGY TECHNOLOGY CO-OPERATION

I. General Principles

Article 1

Mandate

- 1.1 In fulfilment of Chapter VII of the Agreement on an International Energy Program and in light of the Shared Goals of the IEA, the IEA operates Implementing Agreements to enable IEA Member countries to carry out programmes and projects on energy technology research, development and deployment.
- 1.2 An Implementing Agreement is a contractual relationship established by at least two IEA Member countries, and approved by the Governing Board, for the purpose set out in Article 1.1.
- 1.3 Participants in an Implementing Agreement shall contribute as fully as possible to the achievement of its objectives and shall endeavour to secure, through public and private support, the necessary scientific, technical and financial resources for the programmes and projects carried out under such an Implementing Agreement.
- 1.4 Each Implementing Agreement shall have an Executive Committee composed of representatives of all participants.

Article 2

Nature of Implementing Agreements

- 2.1 The activities of an Implementing Agreement may include, *inter alia*:
 - (a) co-ordination and planning of specific energy technology research, development and deployment studies, works or experiments carried out at a national or international level, with subsequent exchange, joint evaluation and pooling of the scientific and technical results acquired through such activities;
 - (b) participation in the operation of special research or pilot facilities and equipment provided by a participant, or the joint design, construction and operation of such facilities and equipment;
 - (c) exchange of information on (i) national programmes and policies, (ii) scientific and technological developments and (iii) energy legislation, regulations and practices;
 - (d) exchanges of scientists, technicians or other experts;
 - (e) joint development of energy related technologies; and
 - (f) any other energy technology related activity.

- 2.2 Participation in an Implementing Agreement shall be based on equitable sharing of obligations, contributions, rights and benefits. Participants in an Implementing Agreement shall undertake to make constructive contributions, whether technical, financial or otherwise, as may be agreed by the Executive Committee.
- 2.3 Some or all of the participants in an Implementing Agreement may choose to execute specific projects and/or programmes through Annexes to the Implementing Agreement.

II. Rules Applicable to IEA Implementing Agreements

Article 3

Participation, Admission and Withdrawal

- 3.1 An Implementing Agreement can be established by two or more IEA Member countries subject to approval of the Committee on Energy Research and Technology (CERT) and of the Governing Board. There are two possible categories of participants in Implementing Agreements: Contracting Parties and Sponsors.
- 3.2 Contracting Parties may be
- (a) the governments of both OECD member or OECD non-member countries;
 - (b) the European Communities;
 - (c) international organisations in which the governments of OECD member countries and/or OECD non-member countries participate; and
 - (d) any national agency, public organisation, private corporation or other entity designated by the government of an OECD member country or an OECD non-member country, or by the European Communities.
- 3.2.1 Participation in any Implementing Agreement for OECD non-member countries or for international organisations requires prior approval by the CERT. However, should the CERT consider a first time application by an OECD non-member country or an international organisation to be sensitive, it may refer the decision to the Governing Board as it deems appropriate.
- 3.2.2 Prior to CERT approval of participation of OECD non-member countries or international organisations in any Implementing Agreement, the Executive Committee shall:
- (a) have voted in favour of the applicant to join the Implementing Agreement and provide evidence of the same to the CERT;
 - (b) provide the CERT with a copy of the terms and conditions of the applicant's participation in the Implementing Agreement; and

- (c) provide the CERT with a letter from the applicant expressing the applicant's desire to join the Implementing Agreement and specifying which Annexes it wishes to join; its acceptance of the terms and conditions of the Implementing Agreement; the name of its designated entity if it is not the applicant itself; and the name of the entity that will sign the Implementing Agreement.
- 3.2.3 The terms and conditions for the admission, participation and withdrawal of Contracting Parties, including their rights and obligations, in Implementing Agreements and their Annexes, if any, shall be established by the Executive Committee of each Implementing Agreement.
- 3.2.4 Notwithstanding Article 3.2.3, no Contracting Party from an OECD non-member country or international organisation shall have greater rights or benefits than Contracting Parties from OECD member countries.
- 3.3 Sponsors may be
 - (a) entities of OECD member countries or OECD non-member countries who are not designated by the governments of their respective countries to participate in a particular Implementing Agreement; and
 - (b) non-intergovernmental international entities in which one or more entities of OECD member countries or OECD non-member countries participate.
- 3.3.1 Participation of Sponsors in Implementing Agreements requires prior approval by the CERT.
- 3.3.2 Prior to CERT approval of Sponsor participation in any Implementing Agreement, the Executive Committee shall:
 - (a) have voted in favour of the applicant to join the Implementing Agreement and provide evidence of the same to the CERT;
 - (b) provide the CERT with a copy of the terms and conditions of the applicant's participation in the Implementing Agreement; and
 - (c) provide the CERT with a letter from the applicant expressing the applicant's desire to join the Implementing Agreement and specifying which Annexes it wishes to join; its acceptance of the terms and conditions of the Implementing Agreement; and the name of the entity that will sign the Implementing Agreement.
- 3.3.3 The terms and conditions for the admission, participation and withdrawal of Sponsors, including rights and obligations, in Implementing Agreements and their Annexes, if any, shall be established by the Executive Committee of each Implementing Agreement.
- 3.3.4 Notwithstanding Article 3.3.3, no Sponsor shall have greater rights or benefits than Contracting Parties from OECD non-member countries and no Sponsor shall be designated Chair or Vice-chair of an Implementing Agreement.
- 3.3.5 The CERT shall have the right to not approve participation of a Sponsor if the terms and conditions of such participation do not comply with this Framework, any Decisions of the CERT or the Governing Board and the Shared Goals of the IEA.

Article 4

Specific Provisions

- 4.1 Unless the CERT otherwise agrees, based on exceptional circumstance and sufficient justification, Implementing Agreements shall be for an initial term of up to, but no more than, five years.
- 4.2 An Implementing Agreement may be extended for such additional periods as may be determined by its Executive Committee, subject to approval of the CERT. Any single extension period shall not be greater than five years unless the CERT otherwise decides, based on exceptional circumstances and sufficient justification.
- 4.3 Notwithstanding Paragraph 4.2, should the duration of the programme of work of an Annex exceed the term of the Implementing Agreement to which it relates, the CERT shall not unreasonably withhold approval to extend the Implementing Agreement for such additional period to permit the conclusion of the work then being conducted under the Annex.
- 4.4 Either the Contracting Parties or the Executive Committee of each Implementing Agreement shall:
 - 4.4.1 approve the programme activities and the annual programme of work and budget for the relevant Implementing Agreement;
 - 4.4.2 establish the terms of the contribution for scientific and technical information, know-how and studies, manpower, capital investment or other forms of financing to be provided by each participant in the Implementing Agreement;
 - 4.4.3 establish the necessary provisions on information and intellectual property and ensure the protection of IEA copyrights, logos and other intellectual property rights as established by the IEA;
 - 4.4.4 assign the responsibility for the operational management of the programme or project to an entity accountable to the Executive Committee of the relevant Implementing Agreement;
 - 4.4.5 establish the initial term of the Implementing Agreement and its Annexes;
 - 4.4.6 approve amendments to the text of the Implementing Agreement and Annexes; and
 - 4.4.7 invite a representative of the IEA Secretariat to its Executive Committee meetings in an advisory capacity and, sufficiently in advance of the meeting, provide the Secretariat with all documentation made available to the Executive Committee members for purposes of the meeting.

Article 5

Copyright

- 5.1 Notwithstanding the use of the IEA name in the title of Implementing Agreements, the Implementing Agreements, the Executive Committee or the entity responsible for the operational management of the programme or project may use the name, acronym and emblem of the IEA as notified to the World Intellectual Property Organisation (WIPO) only upon prior written authorisation of the IEA and solely for the purposes of executing the Implementing Agreements.
- 5.2 The IEA shall retain the copyright to all IEA deliverables and published or unpublished IEA material. Implementing Agreements wishing to use, copy or print such IEA deliverables and/or material shall submit a prior written request of authorisation to the IEA.

Article 6

Reports to the IEA

- 6.1 Each Executive Committee shall submit to the IEA:
- 6.1.1 as soon as such events occur, notifications of any admissions and withdrawals of Contracting Parties and Sponsors, any changes in the names or status of Contracting Parties or Sponsors, any changes in the Members of the Executive Committee or of the entity responsible for the operational management of the programme or project, or any amendments to an Implementing Agreement and Annex thereto;
- 6.1.2 annual reports on the progress of programmes and projects of the Implementing Agreement and any Annex;
- 6.1.3 notwithstanding Article 6.1.1, in addition to and with the Annual Report, annually provide the IEA with the following information:
- (a) the names and contact details of all current Contracting Parties and Sponsors;
 - (b) the names and contact details of all Contracting Parties and Sponsors who may have withdrawn from the Implementing Agreement or any Annex in the year covered by the Annual Report;
 - (c) the names and contact details of all new Contracting Parties and Sponsors who may have joined the Implementing Agreement or any Annex in the year covered by the Annual Report;
 - (d) any changes in the names or status of any Contracting Parties or Sponsors;
 - (e) the names and contact details of the Executive Committee members and the entity responsible for the operational management of the programme or project; and
 - (f) any amendments to the text of an Implementing Agreement and any Annex thereto.

- 6.1.4 End of Term Reports, which shall include all the information and documentation required by Decisions of the CERT then in effect and relating thereto; and
- 6.1.5 at the request of the IEA, any other non-proprietary information as may be requested by the IEA in connection with the IEA's mandate.

Article 7

Effective Date

This Framework shall take effect and become binding on all participants in the Implementing Agreements and Annexes from the date of its approval as a decision by the Governing Board.

Annex I

CO-ORDINATION OF RESEARCH AND DEVELOPMENT WORK ON REVERSED FIELD PINCHES

1. *Objective*

The objective of this Task is to improve the experimental and theoretical programmes of EURATOM, the Government of Japan and the United States Department of Energy (USDOE) in the field of Reversed Field Pinches ("RFP") by co-ordination as may be agreed upon. The programmes are conducted for EURATOM, the Government of Japan and the USDOE respectively by the EURATOM Associated Laboratories of Culham and Padua, the Japanese laboratories (such as ETL, University of Tokyo, IPP of Nagoya) and the United States laboratories (such as Los Alamos, the University of Wisconsin, and GA Technologies, Inc. in La Jolla, California) hereinafter called "the Participating Laboratories".

2. *Scope*

Co-operation between the Participants in the activities to be conducted under this Programme shall include:

- (a) Exchange of information in the following areas: theoretical, experimental and computational research on the physics of the RFP confinement system, the operational characteristics and research activities of existing RFP devices, the potential for fusion reactor applications and its relevance to magnetic confinement fusion in general, the design, construction and operation of RFP devices, and managerial and operational experiences of large RFP facilities including operating and documentation procedures and computer control systems;
- (b) The planning and execution of co-ordinated studies, including:
 - (1) Research in RFP devices such as HBTX in Culham, ETA BETA II in Padua, ZT40 in Los Alamos, OHTE in San Diego, Repute in Tokyo, TPE-1RM (15) in Tsukuba, and STP-3M in Nagoya, and in areas such as:
 - (i) Fluctuations, relaxation, reversed field generation and transport;
 - (ii) Plasma stability;
 - (iii) Field errors and equilibrium;
 - (iv) Impurities and radiation;
 - (v) Plasma-wall interaction, divertors and limiters;
 - (vi) Ohmic heating and resistivity;

- (vii) Current drive;
 - (viii) Plasma fueling and density control;
 - (ix) Plasma diagnostics;
 - (x) Reactor studies;
 - (xi) Shell design and performance and its influence on confinement and stability; operation without a thick shell;
 - (xii) Methods of setting up, e.g., with variable risetimes; controlled rundown;
 - (xiii) Development and utilization of diagnostics systems;
 - (xiv) Development and utilization of ancillary features of machines, e.g., current drive for profile control;
 - (xv) Research and development for future machines;
 - (xvi) Other areas as mutually agreed;
- (2) Research in other areas of RFP development such as:
- (i) Theoretical studies of the RFP configuration;
 - (ii) Simulation of RFP behaviour with computational methods;
 - (iii) Novel diagnostics, including associated data acquisition storage and retrieval;
 - (iv) Near term technological issues, including the suitability of materials for RFP devices;
- (3) Discussion of planning, preliminary design and experimental programme for the large RFP facilities;
- (4) Planning and preliminary designs for RFP fusion reactor systems;
- (c) Assignment of scientists, engineers and other technical experts to work at the facilities of the Participants;
- (d) Workshops, seminars and symposia;
- (e) Establishment of communication links for terminal traffic and file transfer between the Participating Laboratories in support of co-operative projects when the need arises;
- (f) Exchanges and common development of relevant non-proprietary computer codes; and

- (g) The transfer of equipment and materials between the facilities of the Participants.

3. *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 Operating Agent. Such agreements shall specify the work plan to be followed by such experts.
- (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, and to assist in the conduct of the experiment. 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 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. 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.

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

4. *Management*

(a) *RFP Research Committee*

- (1) The Executive Committee shall establish a RFP Research Committee which shall plan and co-ordinate the agreed RFP joint research in the Participating Laboratories and shall report to the Executive Committee through the Operating Agent.
- (2) The RFP Research Committee shall be composed of up to two members nominated by each Contracting Party. The Chairman, selected by the RFP Research Committee from among its members on an annually rotating basis, shall attend the meetings of the Executive Committee. EURATOM, the Government of Japan and the USDOE shall be formally notified of all meetings, shall be supplied with agendas, minutes and papers, and may send observers. The Participating Laboratories shall make recommendations to the Contracting Party of alternative members to participate in the meetings in the event that any of their members is unable to do so. Other individuals as deemed appropriate by the RFP Research Committee may attend the meetings in an advisory capacity.
- (3) The RFP Research Committee will formulate a general programme to implement the joint research programmes among the Participating Laboratories in research topics specified by the Executive Committee or a subsidiary body designated by the Executive Committee.
- (4) The RFP Research Committee will set up Working Groups, as appropriate, in particular for the areas of physics, diagnostics and technology, including reactor studies, to co-ordinate research in these areas.
- (5) The RFP Research Committee will report once a year, through the Operating Agent, to the Executive Committee on progress in the Participating Laboratories on the implementation of this Annex.

- (b) *Operating Agent.* In this Annex, the Operating Agent shall act as a Co-ordinator. The Operating Agent shall make arrangements for meetings of the RFP Research Committee, as directed by the Chairman of the RFP Research Committee; shall prepare, verify, and distribute the minutes of the RFP Research Committee; shall facilitate, through the convening of meetings, workshops and other means of co-ordinated research and planning, activities

among the Participants; shall assist personnel assignments and act as the central repository for all reports, publications and other information as collected and developed under this Annex, and shall be responsible for their distribution to Members of the RFP Research Committee, and to others as directed by the RFP Research Committee. The cost for this administrative activity shall be borne by the Operating Agent.

5. *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 Annex shall be determined by the Executive Committee, acting by unanimity, in conformity with this Annex.
- (b) *Right to Publish.* Subject only to patents and copyright restrictions of this Annex, the Participants shall have the right to publish all information provided to or arising from the activities under this Annex, 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 Annex, proprietary information shall mean information of a confidential nature acquired prior to or outside the scope of this Annex, 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 Operating Agent should encourage the governments of all Agency Participating Countries to make available or to identify to the Operating Agent all published or otherwise freely available information known to them that is relevant to the activities under this Annex. The Participants should notify the Operating Agent of all pre-existing information, and information developed independently of the activities, known to them which is relevant to the activities under this Annex and which can be made available to the activities under this Annex without contractual or legal limitations.
- (e) *Information.* Each Participant agrees to provide to the other Participants and to the Operating Agent all information utilized in the activities under this Annex or which is necessary for practising the results of the activities in this Annex, as well as all information listed in paragraph 2(a) above. All information developed in connection with and during activities carried out under this Annex (arising information) shall be provided to each Participant and to the Operating Agent 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 0 below. Reports containing arising information and pre-existing information necessary for and used in the activities under this Annex, including proprietary information in accordance with paragraphs (b) and (c) above, shall be provided to the Operating Agent and to the Participants by the Participant performing the work. The Operating Agent shall provide summary reports of work performed under this Annex 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 Operating Agent 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.
- (f) *Inventions and Discoveries.* With respect to any invention or discovery made or conceived in the course of or under this Annex by personnel (the Inventor) 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 of scientists, engineers and other specialists, the Participants concerned will take all necessary steps subject to applicable laws and regulations to ensure that:
- (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 (or the Inventor, as the case may be) shall acquire all right, title and interest in and to any 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 (or Inventor, as the case may be) shall 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.

Whether the rights provided above shall be held by the Participant or the Inventor shall be determined as between themselves by the Participant and Inventor concerned.

- (g) *Copyright.* The Operating Agent or each Participant for its own work under this Annex may take appropriate measures necessary to protect copyrightable material generated under the activities under this Annex. Copyrights obtained shall be the property of that Participant or Operating Agent, provided, however that Participants may reproduce and distribute such material, but shall not publish it with a view to profit.
- (h) *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.
- (i) *Determination of "National".* The Participants 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 in the countries of the Member States of EURATOM and Sweden.
- (j) *Instrumentation and Equipment.* The information and intellectual property provisions governing instrumentation and equipment under paragraph 3(b) of this Annex shall be set forth in a written agreement between the concerned Participants.

6. *Finance*

Each Participant shall bear the costs it incurs in carrying out this Annex, including the costs of formulating or transmitting reports to the Participants and to the Operating Agent and

of reimbursing its employees for travel and other per diem expenses incurred in connection with the work.

7. *Time Schedule*

This Annex shall enter into force with the Agreement and remain in force for a period of ten years. Within the limits of an extended term of the Agreement, this Annex may be extended one or more times as required by two or more Participants acting in the Executive Committee, and taking into account any recommendation of the Agency's Committee on Energy Research and Development 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. *Operating Agent*

This Task shall be conducted by EURATOM and by UKAEA-Culham in the EURATOM-UKAEA Fusion Association. The Operating Agent shall be the EURATOM-UKAEA Fusion Association, acting through Culham Laboratory.

9. *Participants*

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

The European Atomic Energy Community (EURATOM),
The Government of Japan,
The United States Department of Energy.

Annex II

JOINT WORK ON THE INVESTIGATION OF PLASMA CONFINEMENT PHYSICS AND TECHNOLOGY IN RFX

1. *Background and Objective*

- (a) *Background.* RFX is a Reversed Field Pinch (RFP) experiment at the Istituto Gas Ionizzati (IGI) at Padua, Italy, scheduled to begin operation in 1989. It has major and minor radii of 2.0 and 0.5 metres respectively. It has a design capability of 2 Mega Ampère plasma current, lasting up to a few hundred milliseconds, with a toroidal field of up to 0.7 Tesla. Compared with the existing machines, RFX represents a major step for the development of this approach, alternative to the tokamaks, within the framework of the magnetic confinement fusion experiments.
- (b) *Objective.* The objective of the joint work is to obtain for all the Participants better understanding of RFP physics and technology by jointly exploiting the RFX apparatus.

2. *Means*

- (a) *Scope.* Co-operation among the Participants in the activities to be conducted under this Task shall include:
- (1) Developing detailed physics understanding by comparison of RFX observations with theoretical and computational predictions of, e.g.
 - the magnetic field structure;
 - equilibria and their stability with finite β ;
 - mechanisms of relaxation and transport;
 - (2) Jointly-conducted experiments on RFX, using the special skills developed by the laboratories of the Participants, such as:
 - studies on density control with gas puffing, pellet injection and wall conditioning;
 - studies on setting-up, equilibrium control and sustainment with different programming conditions;
 - measurements of magnetic field profiles and fluctuations;
 - (3) Joint technological development and testing of materials and equipment to be used on RFX, such as:
 - graphite walls and limiters;

- Closed loop controllers for plasma position and shape;
 - Advanced diagnostics;
- (4) Assignment of scientists, engineers and other technical experts to work at the facilities of the Participants;
 - (5) Establishment of a communications link for terminal traffic and file transfer between the laboratories of the Participants in support of the co-operative project when the need arises;
 - (6) Exchanges and common development of relevant non-proprietary computer codes;
 - (7) The transfer of equipment and materials between the facilities of the Participants; and
 - (8) Workshops, seminars and symposia.

(b) *Assignment of Personnel and Exchanges of Equipment and Material*

- (1) 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 Operating Agent. Such agreements shall specify the work plan to be followed by such experts.
- (2) 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, and to assist in the conduct of the experiment. 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.
- (3) The procedures to be followed in assigning experts shall be as follows:
 - (i) 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;
 - (ii) 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 applicable to such assignments, after which the assignments may be implemented;
- (iii) The duration of the assignment shall normally be as agreed between the concerned Participants;
 - (iv) 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;
 - (v) All personnel expenses associated with an assignment shall be borne by the assigning Participant. 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.
- (4) The transfer of equipment and materials shall be agreed upon in writing between the Participants.

3. *Operating Agent*

- (a) The Operating Agent as designated in paragraph 7 below shall be responsible for the operation of RFX (for the purposes of this paragraph, "the Facility"). "Operation" herein means the overall administrative and technical management of the Facility.
- (b) The Operating Agent shall make all the necessary arrangements to facilitate access for each Participant involved, including the provision of laboratory and office space and computer time.
- (c) The Operating Agent shall provide the necessary technical personnel for the routine operation of the Facility during the agreed experiments, for covering the Facility's operating costs, and for acquiring the basic plasma data required for the interpretation of results insofar as permitted by standard measuring methods installed at the time. The Facility's operating costs are the costs anticipated in connection with the routine operation of the Facility.
- (d) For facilities of the Participants other than the Facility, the responsibilities of the Operating Agent shall be limited to administrative co-ordination. The operation of those other facilities shall be the responsibility of the appropriate Participant.

4. *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 Annex shall be determined by the Executive Committee, acting by unanimity, in conformity with this Annex.
- (b) *Right to Publish.* Subject only to patents and copyright restrictions of this Annex, the Participants shall have the right to publish all information provided to or arising from the activities under this Annex, 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 Annex, proprietary information shall mean information of a confidential nature acquired prior to or outside the scope of this Annex, 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 Operating Agent should encourage the governments of all Agency Participating Countries to make available or to identify to the Operating Agent all published or otherwise freely available information known to them that is relevant to the activities under this Annex. The Participants should notify the Operating Agent of all pre-existing information, and information developed independently of the activities, known to them which is relevant to the activities under this Annex and which can be made available to the activities under this Annex without contractual or legal limitations.

- (e) *Information.* Each Participant agrees to provide to the other Participants and to the Operating Agent all information utilized in the activities under this Annex or which is necessary for practising the results of the activities in this Annex. All information developed in connection with and during activities carried out under this Annex (arising information) shall be provided to each Participant and to the Operating Agent 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 preexisting information necessary for and used in the activities under this Annex, including proprietary information in accordance with paragraphs (b) and (c) above, shall be provided to the Operating Agent and to the Participants by the Participant performing the work. The Operating Agent shall provide summary reports of work performed under this Annex 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 Operating Agent 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.
- (f) *Inventions and Discoveries.* With respect to any invention or discovery made or conceived in the course of or under this Annex by personnel (the Inventor) 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 of scientists, engineers and other specialists, the Participants concerned will take all necessary steps subject to applicable laws and regulations to ensure that:
- (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 (or the Inventor, as the case may be) 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 (or Inventor, as the case may be) shall 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.

Whether the rights provided above shall be held by the Participant or the Inventor shall be determined as between themselves by the Participant and Inventor concerned.

- (g) *Copyright.* The Operating Agent or each Participant for its own work under this Annex may take appropriate measures necessary to protect copyrightable material generated under the activities under this Annex. Copyrights obtained shall be the property of the Participant or Operating Agent, provided, however, that Participants may reproduce and distribute such material, but shall not publish it with a view to profit.
- (h) *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.
- (i) *Determination of "National".* The Participants 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 and Sweden.
- (j) *Instrumentation and Equipment.* The information and intellectual property provisions governing instrumentation and equipment under paragraphs 2(b)(2) and 2(b)(4) of this Annex shall be set forth in a written Agreement between the concerned Participants.

5. *Finance*

Each Participant shall bear the costs it incurs in carrying out this Annex, including the costs of formulating or transmitting reports to the Participants and to the Operating Agent and of reimbursing its employees for travel and other per diem expenses incurred in connection with the work.

6. *Time Schedule*

This Annex shall enter into force with the Agreement and remain in force for a period of ten years. Within the limits of an extended term of the Agreement, this Annex may be extended one or more times as required by two or more Participants acting in the Executive Committee, and taking into account any recommendation of the Agency's Committee on Energy Research and Development 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.

7 *Operating Agent*

This Task shall be conducted by EURATOM and by ENEA in the EURATOM-ENEA Association for Fusion. The Operating Agent shall be EURATOM and ENEA, acting through Istituto Gas Ionizzati - CNR, Padua.

8. *Participants*

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

The European Atomic Energy Community (EURATOM),
The Government of Japan,
The United States Department of Energy.

The Legal Counsel of the International Energy Agency hereby certifies that the present copy conforms to the original text deposited with the Executive Director of the International Energy Agency.

Paris,

THE LEGAL COUNSEL:

RICHARD F. SCOTT