

INTERNATIONAL ENERGY AGENCY
TECHNOLOGY COLLABORATION PROGRAMME

STELLARATOR-HELIOTRON

IMPLEMENTING AGREEMENT

Annex I

CO-OPERATION ON RESEARCH AND PLANNING
FOR THE DEVELOPMENT OF THE STELLARATOR CONCEPT

1. *Background and Objective*

- (a) *Background.* Recent advances in the Stellarator area have considerably enhanced the viability of this toroidal confinement concept. The advances include experiments with high plasma parameters and favourable confinement results, theoretical prospects for high beta operation, and more attractive reactor designs. Steady state operation is an inherent property of this concept. The United States and EURATOM have major Stellarator experimental programmes underway which are complementary to and supportive of each other.
- (b) *Objective.* The objective of this Task is to strengthen co-operation in research and planning to improve the physics base of, and the effectiveness and productivity of, the programmes for the development of the Stellarator concept.

2. *Means*

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

- (a) Exchanges of information on:
- Experimental results of Stellarator devices;
 - Development and testing of technology needed for the Stellarator experiments;
 - Theoretical and system analyses;
 - Conceptual designs of future advanced devices; and
 - National programme plans in the area of Stellarators;
- (b) Assignment of specialists to the facilities or research groups of the Participants; and
- (c) Conduct of workshops, seminars and symposia.

3. *Assignment of Personnel*

- (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.
- (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 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.

4. *Operating Agent*

The Operating Agent shall make arrangements for meetings of the Executive Committee, as directed by the Chairman of the Executive Committee; shall prepare, verify, and distribute the minutes of the Executive Committee; shall assist personnel assignments as directed by the Executive Committee; and shall 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 Executive Committee, and to others as directed by the Executive 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, know 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 (f) 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) *Licensing of Inventions.* With respect to any invention or discovery made or conceived in the course of or under this Annex 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 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.

(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. It is understood that in extraordinary circumstances EURATOM and its associate, IPP, may incur extraordinary expenses in fulfilling the requirements of this paragraph with regard to awards or compensation required to be paid to its employees. In that event, EURATOM may inform the United States Department of Energy of this difficulty and the Parties shall thereafter consult to define an appropriate course of action.

(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 paragraph 3(b) of this Annex shall be set forth in a written Agreement between the concerned Participants.

6. *Finance*

Since there is no intention to establish common funds for this Annex, Article 6(a) of the Agreement shall apply.

7. *Time Schedule*

This Annex shall enter into force on 31st July, 1985, and shall remain in force for a period of five years. 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 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 IPP in the EURATOM-IPP Association for Fusion. The Operating Agent shall be EURATOM and IPP, acting through IPP.

9. *Participants*

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

The European Atomic Energy Community (EURATOM)

The United States Department of Energy.