

AGREEMENT BETWEEN
THE DEPARTMENT OF ENERGY OF THE UNITED STATES OF AMERICA
AND THE
STATE DEVELOPMENT PLANNING COMMISSION OF
THE PEOPLE'S REPUBLIC OF CHINA
ON
COOPERATION CONCERNING
PEACEFUL USES OF NUCLEAR TECHNOLOGIES

The Department of Energy (DOE) of the United States of America and the State Development Planning Commission of the People's Republic of China (hereinafter referred to as the "Parties"):

Recognizing that the United States of America and the People's Republic of China are parties to the Treaty on the Non-Proliferation of Nuclear Weapons;

Reaffirming the Agreement for Cooperation Between the Government of the United States of America and the Government of the People's Republic of China Concerning Peaceful Uses of Nuclear Energy, signed on July 23, 1985; and

Noting the Agreement of Intent on Cooperation Concerning Peaceful Uses of Nuclear Technology Between the Department of Energy of the United States of America and the State Planning Commission of the People's Republic of China, signed on October 29, 1997; and

Wishing to enter into long-term cooperation in the peaceful uses of nuclear technologies;

Have agreed as follows:

ARTICLE I

1. Cooperation between the Parties in activities supporting peaceful nuclear technologies shall be directed towards exchanging information on, and finding solutions to mutually s-greed problems. This cooperation may include the exchange of experience and results of theoretical, experimental, and conceptual design programs, and mutually agreed research and development projects. Cooperation between the two Parties shall be on the basis of mutual benefit, equality, and reciprocity.
2. Cooperation under this Agreement shall be carried out subject to the Agreement for Cooperation Between the Government of the United States of America and

the Government of the People's Republic of China Concerning Peaceful Uses of Nuclear Energy, signed July 23, 1985, and shall be in **accordance with** the laws and regulations of **the respective** countries.

- 3 Any technology transferred or acquired pursuant to this Agreement shall **be** used **only** for peaceful purposes.

ARTICLE II

The areas of cooperation covered by this Agreement may include the following;

1. Current and advanced **light-water** nuclear power reactors technologies including;
 - Reactor **neutronics** analysis and experimentation, including reactor and **plant** shielding and nuclear data;
 - Reactor and plant safety, including safety standards, system safety analysis, severe **accidents analysis**, and accident management;
 - Fuels and **materials**, including structural, component, absorber and circuit materials, long-life fuel and **clad** materials, reduced enrichment research reactor **fuels** and **fuels** which could tend to reduce or eliminate the production of material directly usable in nuclear explosive devices;
 - Nuclear **steam** supply systems and their **associated** components and equipment, including design standard, component, equipment, and system design, thermal hydraulics and structural **analysis**;
 - Engineered safety features and their associated components, **including** design standard, component and system design, structural analysis;
 - Reactor **building**, including containment design, structural and architectural analysis;
 - Instrumentation and control, application of computer science, including advanced digitization control and protection systems;
 - Quality assurance, non-destructive inspection practices and **in-service** inspection technologies;
 - Plant operation and management technology,
 - Economic methodology and evaluation technology;

- Plant aging and life extension;
 - Reactor deactivation and decommissioning, including fuel treatment and storage;
 - Nuclear material transportation, **including transportation** of spent **fuel**, and shipping casks;
 - Irradiation **technology** and advanced techniques in isotope production;
 - Technology and programs to enhance nuclear safety, including associated nuclear and **environmental** impact assessments;
- 2 Prevention and treatment of radiation occupational disease, and application of radiation **technology** and radioactive isotopes to medicine;
 - 3 Radiation protection/health physics;
 - 4 **Environmental** remediation, radioactive and chemical waste management, and spent fuel **management**;
 - 5 Export control of **nuclear** and nuclear related materials, equipment and technologies; nuclear materials protection, control and accounting; physical security of nuclear materials, equipment and technologies; and **technology** development for enhancement of international nuclear safeguards;
 - 6 Such other **related** areas of cooperation as may be added by written agreement of the Parties

ARTICLE **III**

Cooperation under this Agreement with respect to the areas listed in **Article IX**, may include but is not limited to the following forms;

1. Exchange of views and information;
2. Organization of, and participation in, seminars, workshops, and other meetings;
- 3 Exchange of scientists, engineers, and **other** specialists for **agreed** periods of time for **cooperative** training, participation in experiments, analysis, design, and other research, development and demonstration activities at scientific centers, academic institutions, **nuclear reactor** facilities, laboratories, engineering offices, and other facilities of the Parties or of contractors of the Parties;

3. **Exchange**, provision, or loan of samples, materials, **instruments**, components, and **equipment for** experiments, testing, and evaluation;
5. **Short-term visits** by specialist teams or individual **staff** to the civil nuclear facilities and **non-nuclear facilities** in support of the programs **of** the other Party, as may be agreed by the Parties, subject to the prior written agreement on each occasion by the Receiving Party;
6. The use by one Party of the facilities owned or operated by the other Party. Such use of **facilities** shall be the subject of separate written agreements **between** the Parties;
7. Joint **projects**, including research and development, in which the Parties agree to share the work and/or costs. Each such joint project shall be the subject of an itemized **written** implementing arrangement between the Parties in accordance with **Article VI** in this Agreement; and
8. Such other **specific** forms of cooperation as may be agreed by the Parties and approved by the Joint Coordinating **Committee** established pursuant to Article V.

ARTICLE IV

The Parties may invite additional public or private organizations within their respective countries or organizations within the other **country** with permission of the other Party to participate in activities under this Agreement. The **related** expenses will be set in the itemized written implementing arrangement.

ARTICLE V

1. To supervise and coordinate the implementation of this Agreement, a Joint Coordinating Committee on Cooperation **in** Peaceful Uses of **Nuclear Technologies** shall be established. Each Party will have one vote in the Joint Coordinating Committee and each Party may **designate** up to **five** members to participate in any Joint Coordinating Committee meeting. **The Committee** shall meet alternately **in** China and the United States, as mutually agreed by, the Joint Coordinating Committee. The Head of the Delegation of the Host Party **shall** act as Chairman **during** meetings of the Committee. In addition, each Party shall have the right to invite advisors to such meetings, as necessary.
2. **At its meetings, the Joint Coordinating Committee shall develop**, review, and approve proposals for cooperation under this Agreement and evaluate their status.
3. For the **detailed** management of the cooperation, joint working groups may be appointed by **the Joint** Coordinating Committee to cover cooperation undertaken **in** areas listed **in**

Article II. Each joint working group shall agree on specific plans for cooperation in its **respective** area, within guidelines set by the Joint Coordinating Committee.

ARTICLE VI

The Parties shall conclude ~~an~~ itemized written implementing arrangement for each joint project ~~which they agree to~~ undertake **pursuant to Article III(7)**. Each ~~such~~ itemized written implementing arrangement ~~shall~~ be subject to the provisions of this Agreement and shall contain appropriate provisions, on technical scope, management, ~~costs~~, cost sharing, liability, and schedule.

ARTICLE VII

- i The Parties shall exchange, as agreed on a mutually beneficial basis, scientific and technical information and **results** of research and development carried out under this Agreement. Such information shall be limited to that which ~~they~~ have the right to disclose, either ~~in~~ their possession or available to them, ~~from~~ the areas described in Article II.
2. Seminar proceedings **and** reports **of joint** scientific and technical activities, carried out under this Agreement shall be published as joint publications, as **mutually** agreed by **the** Parties.
3. The scientific and technical information developed and exchanged **under** this Agreement is to be given wide distribution. Such **information**, except as noted in Annex I **of this** Agreement, may be made available to the public by either Party through customary channels and in accordance with normal procedures of that **Party**.
4. Copyrights of either Party or of cooperating organizations and persons shall be accorded ~~treatment~~ consistent with internationally recognized **standards** of protection treaties and **conventions** to which both **the** United States of America and the People's Republic of China are parties. As to copyrights of material within the scope of Annex I, owned or **controlled** by a Party, each Party shall make efforts to grant to the other a **license** to reproduce copyrighted materials.
5. The application or use of any scientific and technical information exchanged or transferred ~~between~~ the Parties under this Agreement shall be the responsibility of the Party receiving **it**, **and** the transmitting Party does not **warrant** the suitability of such information for any particular use or application.
6. Protection and **distribution** of intellectual property rights and other rights of a "business confidential" nature are set forth in **Annex I**. Annex I is applicable to any cooperative

activities under this Agreement, except as otherwise **specifically** agreed by the Parties in implementing arrangements.

ARTICLE VIII

Before ~~the~~ related international convention on compensation for nuclear damage is in force for both the United States of America and the People's Republic of China, with respect to a nuclear incident resulting from activities undertaken pursuant to this **Agreement**, the Party in whose territory the nuclear incident occurs shall:

1. Be ~~solely~~ responsible for and deal ~~with~~, in accordance with its laws or regulations, the compensation for legal liability for nuclear ~~damage to~~ third parties resulting ~~from~~ the nuclear incident.
2. Ensure **that the** other Party, its organizations and personnel, its contractors and subcontractors, at any tier, are held **harmless** and do not incur any costs, in any court or forum, as a result of the nuclear incident.
3. Bring no claims or other legal proceedings, in any court or forum, against the other Party, its organizations and **personnel**, its contractors and subcontractors, at any tier, for the **compensation for** legal liability **for** nuclear damage resulting from ~~the~~ nuclear incident.

ARTICLE IX

The following provisions shall apply to assignment or exchanges of personnel;

1. Each Party shall ensure that **qualified** personnel are selected for assignment to the other Party. ~~Each personnel~~ exchange shall be the **subject** of a separate itemized written implementing agreement between the Parties.
2. **The** Assigning Party shall be responsible for its personnel's salaries and insurance, Each ~~itemized~~ written implementing arrangement shall *make* specific; provisions for other ~~expenses~~ of personnel.
3. ~~Each~~ Party shall arrange for adequate accommodations for the other Party's assigned personnel and their families on a mutually agreeable, reciprocal basis,
4. Each Party shall provide all **necessary** assistance to assigned personnel and their families as ~~regards administrative~~ formalities.
5. Itemized written implementing agreements shall address general rules of work and safety of ~~assigned~~ personnel.

ARTICLE X

Except when the Parties otherwise agree in writing, each Party shall bear the costs of its participation in the activities under this Agreement.

2. Cooperation under this Agreement shall be subject to the availability of personnel and funds.

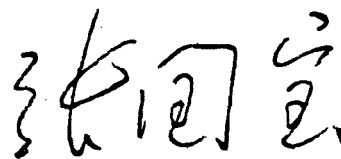
ARTICLE XI

1. **'This Agreement** shall enter into force upon signature, remain in force for five years, and be automatically renewed for further five-year periods unless either Party notifies the other in writing at least six months prior to the **expiration** of the first five-year period or each succeeding five-year **period of its intent to terminate** the Agreement.
2. Any questions of interpretation or implementation relating to this Agreement arising during its term shall be resolved by **agreement** of the Parties.
3. The Agreement may be amended by mutual written agreement of the Parties.
4. Upon consultation, this Agreement may be terminated at any time by either Party, upon one year's advance notification in writing. Such termination shall be **without** prejudice to the rights which may have accrued under this Agreement to either Party up to the date of such termination.
5. Joint activities not completed at the termination of this **Agreement** may, **if** agreed by the Parties, be continued until their completion under the **terms of the** Agreement.

Done, in duplicate, at *Beijing*, in the English and Chinese texts, both versions being equally authentic, this *27th* day of *June*, 1998.

FOR THE DEPARTMENT OF ENERGY
OF THE UNITED STATES OF AMERICA:

FOR THE STATE DEVELOPMENT
PLANNING COMMISSION OF THE PEOPLE'S
REPUBLIC OF CHINA:

98 - 29/6

ANNEX I - INTELLECTUAL PROPERTY

Pursuant to Article VII of this Agreement;

The Parties shall ensure adequate and effective protection of intellectual property created or furnished under this Agreement and relevant implementing arrangements. The Parties agree to notify one another in a timely fashion of any inventions or copyrighted works arising under this Agreement and to seek protection for such intellectual property in a timely fashion. Rights to such intellectual property shall be allocated as provided in this Annex.

I. SCOPE

A. This Annex is applicable to all cooperative activities undertaken pursuant to this Agreement, except as otherwise specifically agreed by the Parties or their designees.

B. For purposes of this Agreement, "intellectual property" shall have the meaning found in Article 2 of the Convention Establishing the World Intellectual Property Organization, done at Stockholm, July 14, 1967.

C. This Annex addresses the allocation of rights and interests between the Parties. Each Party shall ensure that the other Party can obtain the rights to intellectual property allocated in accordance with this Annex, by obtaining those rights from its own participants through contracts or other legal means, if necessary. Between a Party and its nationals, the ownership of rights and interests in intellectual property will be determined in accordance with that Party's national laws and practices.

D. Disputes concerning intellectual property arising under this Agreement should be resolved through discussions between the concerned participating institutions or, if necessary, the Parties or their designees. Upon mutual agreement of the Parties, a dispute shall be submitted to an arbitral tribunal for binding arbitration in accordance with the applicable international arbitration rules. Unless the Parties or their designees agree otherwise in writing, the arbitration rules of UNCITRAL shall govern.

E. In order to protect copyrighted works created under this Agreement, both Parties shall protect unpublished works against their unauthorized publication and guarantee that, when published, copies of works will be marked with an agreed upon, distinguishing indication as provided in Appendix I to this Intellectual Property Annex. If one Party, according to its laws, cannot provide protection to the other's works published in non-member countries of the Berne Convention or the UCC, the participating institution of that Party shall make the best efforts to assist the other Party in publishing in a Berne or UCC member within 30 days of publication, unless copies of the published work are not received by that institution in a timely manner.

F. For purposes of this Agreement, the term "published works" means works published with the consent of their authors, whatever may be the means of the manufacture of the copies, provided that the availability of such copies has been such as to satisfy the reasonable requirements of the public, having regard to the nature of the work.

G. Termination or expiration of this Agreement shall not affect rights or obligations under this Annex.

H. Provision of any computer program, whether in application program or operating systems format and whether in source or object code, by one Party [the Providing Party] to the other Party [the Receiving Party] under this Agreement is contingent on the availability of copyright protection for that program in the territory of the Receiving Party that is generally equivalent to the protection to which it is entitled in the territory of the Providing Party.

II. ALLOCATION OF RIGHTS

A. Each Party shall be entitled to a non-exclusive, irrevocable, royalty-free license in all countries to translate, reproduce, and publicly distribute scientific and technical journal articles, reports, and books directly arising from cooperation under this Agreement. All publicly distributed copies of a copyrighted work prepared under this provision shall indicate the names of the authors of the work unless an author explicitly declines to be named.

B. Rights to all forms of intellectual property, other than those rights described in Section II.A above, shall be allocated as follows:

1. Visiting researchers, for example, scientists visiting primarily in furtherance of their education, shall receive intellectual property rights under the policies of the host institution. In addition, each visiting researcher named as an inventor shall be entitled to national treatment with regard to awards, bonuses, benefits, or any other rewards, in accordance with the policies of the host institution.

2. [a] For intellectual property created during joint research, for example, when the Parties, participating institutions, or participating personnel have agreed in advance on the scope of work, each Party shall be entitled to obtain all rights and interests in its own territory. Rights and interests in third countries will be determined in implementing arrangements. If the research is not designated as "joint research" in the relevant implementing arrangements, rights to intellectual property arising from the research will be allocated in accordance with paragraph II.B 1. In addition, persons named as inventors shall be entitled to national treatment with regard to awards, bonuses, benefits, or any other rewards in accordance with the policies of the participating institutions.

[b] Notwithstanding the **first** paragraph above, if a **type** of intellectual property is protected under the laws of one Party **but not** the **other Party**, unless other allocation **arrangements are agreed upon by both Parties**, the Party whose laws provide for protection shall be entitled to all rights and interests in the Party's own territory and in third countries. **Persons** named as inventors shall nonetheless be entitled to national treatment with regard to awards, bonuses, benefits, or any other rewards in accordance with the policies of the participating **institution** of the Party obtaining rights

3 [a] For inventions made as a **result** of a **program** of cooperative activity that involves only the transfer or exchange of information between the Parties, such **as** by joint meetings, seminars or the exchange of **technical** reports or papers, the **Party** whose personnel make the invention (the inventing Party) has the right to obtain **all rights** and interests in the invention in **all** countries,

[b] In any country where the inventing Party decides not to obtain such rights and interests, the other **Party** has the right to do **so**.

III. BUSINESS-CONFIDENTIAL INFORMATION

In the event **that** information identified in a timely fashion as business-confidential is **furnished** or created under the Agreement, each **Party** and its participants shall **protect** such information in accordance with applicable laws, **regulations**, and **administrative** practice. Information may be identified as "business-confidential" if a person having the **information** may derive an **economic** benefit from it or **may obtain** a competitive advantage over those who do not have it, the information is not **generally** known or **publicly** available **from** other sources, and the owner has not previously made the **information** available without imposing in a timely manner an obligation to keep it confidential.

APPENDIX I

The United States of America marking for the People's Republic of China works:

"This work [or article, book, computer program, etc. as appropriate] first published (date), in (country), was created in **cooperative** activities under the Agreement Between the Department of Energy of the United States of America and the State Development Planning Commission of the People's Republic of China on Cooperation Concerning Peaceful Uses of Nuclear Technologies. The authors authorize **reproduction** of this work, for scholarship, research, and private study, subject to any licenses granted under this Agreement."

The People's Republic of China marking for the United States of America works:

"This work [or article, book, computer program, etc. as appropriate] **first** published (date), in (country), was created in cooperative activities under the Agreement Between the State Development Planning Commission of the People's Republic of China and the Department of Energy of the United States of America on Cooperation Concerning Peaceful Uses of Nuclear Technologies. The authors authorize reproduction of this work, for scholarship, research, and private study, subject to any licenses granted under this Agreement,"