AGREEMENT

FOR ENERGY COOPERATION BETWEEN THE DEPARTMENT OF ENERGY OF THE UNITED STATES OF AMERICA

AND

THE MINISTRY OF ENERGY AND MINES OF

THE REPUBLIC OF VENEZUELA

The Department of Energy of the United States of America (DOE) and the Ministry of Energy and Mines of the Republic of Venezuela (MEM), hereinafter "the Parties":

CONSIDERING

The interest of the Parties in strengthening the bilateral cooperation for the development, application and sustainable use of conventional energy (especially fossil fuels), energy efficiency, and renewable energy;

The importance that the Parties assign to the exchange of information, experiences, and points of view regarding the development and analysis of energy systems, the design and implementation of energy regulatory regimes, the dissemination of energy technology information, and the design, development and improvement of energy information systems;

The Parties' desire to promote regional energy cooperation through information exchange, analysis and forecasting, and cooperative activities within the framework of hemispheric energy cooperation and integration;

The importance the Parties assign to the contribution by conventional energy (especially fossil fuels), energy efficiency and renewable energy to increase the energy diversity and security of supply, to promoting sustainable development and opportunities for economic interaction, as well as to the contribution of technology to the rational and ecologically acceptable development of all phases of energy activity, including evaluation of resources and energy production, transportation, processing, distribution and end use;

The Agreement between the Government of the United States of America and the Government of the Republic of Venezuela for Scientific and Technological Cooperation signed October 12, 1997;

The Agreement between the Parties for Cooperation in the Field of Energy Research and Development signed March 6, 1980, and extended September 8, 1993 for a term of five years (hereinafter the Energy R&D Agreement), and the Parties' interest in continuing certain Implementing Agreements under the Energy R & D Agreement (hereinafter referred to as "Project

1

Annexes") and undertaking new cooperative activities in the field of energy research and development.

Have agreed as follows:

ARTICLE I SCOPE AND OBJECTIVES

- 1. The purpose of this Agreement is to establish a framework for cooperation between the Parties in activities of mutual interest to promote the rational development and use, of conventional energy (especially fossil fuels), energy efficiency and renewable energy, and such other topics as the Parties may agree.
- 2. Cooperative activities under this Agreement will be conducted on the basis of equality, reciprocity, and mutual benefit to the Parties.

ARTICLE II FORMS OF COOPERATION

Cooperation between the Parties under this Agreement may include, but need not be limited to, the following activities:

- A. Exchange of information, analyses and forecasts pertaining to the Parties' energy sectors, including short-, medium-, and, long-term forecasts;
- B. Development of joint studies and projects to facilitate energy planning, the formulation of policies related to energy production and end-use, the establishment of regulatory systems, and the promotion of trade and investment opportunities that foster greater productivity, sustainability, and reliability of energy supply and energy markets;
- C. Design of training activities and educational materials for strengthening institutional capacities and promoting the cleaner and more rational use of conventional energy (especially fossil fuels), energy efficiency, and renewable energy;
- D. Exchange of scientific and technical information, and results and methods of research and development on a periodic basis in a manner agreed to by the Joint Steering Committee established by Article 3 (D);

E. Organization of seminars and other meetings on agreed energy topics;

- F. Survey visits by specialists to the agencies and facilities of the Parties;
- G. Cooperation on the evaluation and development of renewable energy resources and on integrated planning of energy resources;
- H. Conduct of programs for the exchange and training of personnel from the Parties' energy sectors;
- I. Exchange of information and collaboration to identify sources of Financial support for the development of studies, energy analyses and conduct of projects specifically intended to promote the rational and ecologically acceptable use of conventional energy (especially fossil fuels), energy efficiency and renewable energy;
- J. Assistance in the purchase or loan of equipment needed to carry out specific activities undertaken under this Agreement;
- K. Joint projects including experiments, tests, design, analysis and other collaborative technical activities;
- L. Exchange of materials, instruments, components, and equipment for testing and;
- M. Such other activities as the Parties may agree to in writing.

ARTICLE III MANAGEMENT

- A. The Secretary of Energy and of the United States of America and the Minister of Energy and Mines of the Republic of Venezuela each will designate senior Principal Coordinators, representing their respective countries, to coordinate activities under this Agreement. The Principal Coordinators will jointly plan and coordinate cooperative activities and report annually to the Minister and the Secretary, respectively. The Principal Coordinators may establish Joint Committees to assist them in the activities under this Agreement.
- B. The Minister and the Secretary will review progress of the work under this Agreement when they meet. The Principal Coordinators, or the joint committees, will appoint Project Managers for each Project Annex established under Article 4.
- C. The Principal Coordinators will meet annually, or as otherwise mutually agreed, alternatively in Venezuela and the United States. The Principal Coordinators may invite representatives of other organizations within their countries to attend the meetings and serve as advisers to assist in the planning and conduct of cooperative activities undertaken under this Agreement.

D. The Joint Steering Committee (JSC) established under the Energy R&D Agreement will continue supervising the implementation of the ongoing Annexes I, IV, X, XIV, XV, XVI and XVII under the Energy R&D Agreement and other new cooperative energy research and development activities.

ARTICLE IV PROJECT ANNEXES

- 1. When the Parties agree to undertake a cooperative activity or an activity which may give rise to intellectual property, the Parties will execute a Project Annex. Each will include provisions for carrying out the activity as well as appropriate provisions pertaining to technical scope, intellectual property as defined in Annex A of this Agreement, management, total costs, cost sharing, schedule and other issues as appropriate.
- 2. The following Project Annexes which were entered into pursuant to the Energy R & D Agreement shall continue in effect until work undertaken is completed subject to the term and conditions of this Agreement or until this Agreement expires or is terminated in accordance with Article 12.
 - A. Project Annex I, Joint Characterization of Heavy Crude.
 - B. Project Annex IV, Enhanced Oil Recovery Thermal Process.
 - C. Project Annex X, On-Site Training of Petroleum Engineers.
 - D. Project Annex XIV, Exchange of Energy Related Personnel.
 - E. Project Annex XV, Oil Recovery Information and Technology Transfer.
 - F. Project Annex XVI, Oil And Petrochemical Ecology and Environmental Research.
 - G. Project Annex XVII, Drilling Technology.

ARTICLE V

ASSIGNMENT OR EXCHANGE OF PERSONNEL

The following provisions shall apply concerning assignment or exchanges of personnel under this Agreement:

- A. Each Party will make best efforts to ensure that personnel to be assigned to or exchanged with the other Party have the necessary qualifications skills and competence to perform the activities planned under this Agreement.
- B. Each assignment or exchange of personnel will be agreed in writing.
- C. Each Party will be responsible for the salaries, insurance, travel expenses, and allowances to be paid to its personnel.
- D. Each Party will provide assistance to the personnel from the other Party (including accompanying relatives when appropriate) in matters such as lodging and administrative formalities related to the trips on a mutually acceptable and reciprocal basis.
- E. The personnel from each Party who are visiting the other Party will conduct themselves as agreed to in the specific assignment or exchange agreement.

ARTICLE VI

EXCHANGES OF EQUIPMENT

The following provisions shall apply concerning exchanges of equipment pursuant to this Agreement:

- A. By mutual agreement, a Party may provide equipment to be utilized in a joint activity. In such cases, the sending Party shall supply, as soon as possible, a detailed list of the equipment to be provided together with the relevant specifications and appropriate technical informational documentation related to the use, maintenance, and repair of the equipment.
- B. Title to the equipment and necessary spare parts supplied by the sending Party for use in joint activities shall remain in the sending Party, and the property shall be returned to the sending Party upon completion of the joint activity, unless otherwise agreed in writing.
- C. Equipment provided pursuant to this Agreement shall be brought into operation at the host establishment only by mutual agreement between the Parties.
- D. The host establishment shall provide the necessary premises, shall provide for utilities such as electric power, water and gas, and normally shall provide materials to be tested, in accordance with the agreed technical requirements.

- E.. The responsibility and expenses for the transport of the equipment and materials from the United States by plane or ship to an authorized port of entry in Venezuela convenient to the ultimate destination, and also the responsibility for its safekeeping and insurance en route shall rest with DOE.
- F. The responsibility and expenses for the transport of the equipment and materials from Venezuela by plane or ship to an authorized port of entry in the United States convenient to the ultimate destination, and also the responsibility for its safekeeping and insurance en route shall rest with MEM
- G. Equipment provided pursuant to this Agreement for use in joint activities shall be considered to be scientific, not having commercial character, and each Party shall make its best effort to obtain duty free entry.

ARTICLE VII EXCHANGES OF INFORMATION

The following provisions shall apply concerning exchanges of information pursuant to this Agreement:

- A. Each Party will, according to its legal authority, make available to the other the information which is relevant for complying with the activities in the Agreement and which can be made available in terms of the laws and regulations of each country as long as this information is reasonably accurate and is adequately documented. The Parties will not exchange business-confidential information of any nature unless agreed upon in writing. Information can be designated as business-confidential if the person or institution having the information may derive economic benefit 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. The Parties agree that exchanged information which is not business-confidential as defined in this Article can be broadly disseminated.
- B. The use and application of any information supplied, exchanged, or developed by the Parties will be the responsibility of the receiving Party. The issuing Party does not guarantee, that the information is suitable for any purpose.
- C. In the eventuality that any information which is generated, exchanged, or submitted under this Agreement is identified in a timely manner as business-confidential information, each Party and its participants will protect such information in view of the pertinent administrative laws, regulations, authorities and practices.

D. No provision in this Agreement can obligate the Parties to allow access to information that is restricted for any reason, or when one Party considers it essential for national security, the safeguard of national resources or the competitiveness for public or private companies, research centers, or laboratories.

ARTICLE VIII INTELLECTUAL PROPERTY

The provisions for the protection and transfer of intellectual property are established in Annex A to this Agreement, "Intellectual Property," which constitutes an integral part of this Agreement and is applicable to all cooperative activities performed under the Agreement.

ARTICLE IX SECURITY OBLIGATIONS

The Parties agree that no information or equipment requiring protection in the interests of national defense or foreign relations of either Party and classified in accordance with the applicable national laws and regulations shall be provided under this Agreement. In the event that information or equipment which is known or believed to require such protection is identified in the course of cooperative activities undertaken under this Agreement, it will be brought promptly to the attention of the appropriate officials and the Parties will consult concerning the need for, and level of, appropriate protection to be accorded such information or equipment.

ARTICLE X GENERAL PROVISIONS

- A. Unless otherwise agreed by the Parties in writing, all expenses resulting from cooperative activities under this Agreement will be paid by the Party that incurs them.
- B. Each Party will conduct the activities provided for in this Agreement subject to its respective laws and regulations and will provide financial resources subject to the availability of appropriated funds and personnel.
- C. This Agreement shall, as of the date of signature, supersede the Energy R&D Agreement, provided however that the Annexes (I, IV, X, XIV, XV, XVI and XVII) initiated under the Agreement are continued in effect and shall be subject to, and form an integral part of this Agreement.

7

ARTICLE XI SOLUTION OF DISPUTES

All questions related to the interpretation of this Agreement will be resolved by agreement of the Parties.

ARTICLE XII

ENTRY INTO FORCE, DURATION, MODIFICATION, AND TERMINATION

- A. This Agreement will enter into force upon signature and will remain in force for five (5) years unless it is modified or terminated pursuant to the terms established in this Agreement. Unless one of the Parties notifies the other Party in writing of its intention to terminate this Agreement at least six months before its expiration this Agreement will be automatically extended for an additional five-year Period.
- B. This Agreement may be modified or extended by written agreement of the Parties.
- C. Either of the Parties may terminate this Agreement upon ninety (90) days' written notice to the other Party. The termination of this Agreement will not affect the completion of activities initiated but not completed during its term.

Done at the City of Caracas on the $13^{\frac{1}{2}}$ day of the month of October, nineteen ninety-seven, in two versions in English and Spanish, both texts being equally authentic.

BY THE DEPARTMENT OF ENERGY OF THE UNITED STATES OF AMERICA

Jederic De:

BY THE MINISTRY OF ENERGY AND MINES OF THE REPUBLIC OF VENEZUELA

Erwin José Arrieta Valera Minister of Energy and Mines

Federico F. Peña Secretary of Energy

8

ANNEX A INTELLECTUAL PROPERTY

A. The Parties shall ensure adequate and effective protection of intellectual property created or furnished under this Agreement and relevant Project Annexes. 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.

B. Scope

- 1. This Annex is applicable to all cooperative activities undertaken pursuant to this Agreement, except as otherwise specifically agreed by the Parties or their designees.
- 2. 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.
- 3. 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. This Annex does not otherwise alter or prejudice the allocation between a Party and its nationals, which shall be determined by that Party's laws and practices.
- 4. 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 rules of international law. Unless the Parties or their designees agree otherwise in writing, the arbitration rules of the United Nations Commission on International Trade Law (UNCITRAL) shall govern.
- 5. Termination or expiration of this Agreement shall not affect rights or obligations under this Annex.
- 6. Cooperative activities will not be entered into where the purposes of the activities is to produce inventions in the following areas, or where there is a possibility of producing inventions in the following areas, until such time as inventions in these areas are considered patentable subject matter by both Parties:

1.

drinks and food products for humans and animals;

- 2. medicines of all kinds, and
- 3. pharmaceutical and chemical preparations, reactions and compounds.

C. Allocation of Rights

- 1. Each Party shall be entitled to a nonexclusive, irrevocable, royalty free license in all countries to translate, reproduce, and publicly distribute scientific and technical journals 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.
- 2. Rights to all forms of intellectual property, other than those described in Paragraph C.1 above shall be allocated as follows:
 - (i) 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.
 - (ii) (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 country. Rights and interests in third countries will be determined in Project Annexes. If research is not designated as "joint research" in the relevant Project Annexes, rights to intellectual property arising from the research will be allocated in accordance with paragraph C.2(i) above. In addition, each person 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 participating institutions.

(b)Notwithstanding paragraph C.2(ii)(a) above, if a type of intellectual property is available under the laws of one Party but not the other Party, the Party whose laws provide for this type of protection shall be entitled to all rights, and interests worldwide. Persons named as inventors of the property 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 institutions of the Party obtaining the rights.

D. Business-confidential Information

In the event that information identified in a timely fashion as business-confidential is furnished or created under this Agreement, each Party and its participants shall protect such information in accordance with applicable laws, regulations, and administrative practices. Information may be identified as "business-confidential" if a person having the information may derive 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.