

**MEMORANDUM OF UNDERSTANDING
BETWEEN
THE ENVIRONMENTAL PROTECTION AGENCY
OF THE UNITED STATES OF AMERICA
AND
THE MINISTRY OF SCIENCE AND TECHNOLOGY
OF THE PEOPLE'S REPUBLIC OF CHINA
ON SCIENTIFIC AND TECHNICAL COOPERATION
IN THE FIELD OF ENVIRONMENTAL PROTECTION**

The Environmental Protection Agency of the United States of America (EPA) and the Ministry of Science and Technology of the People's Republic of China (MOST), hereinafter referred to as the "Parties;"

In accordance with and subject to the Agreement Between the Government of the United States of America and the Government of the People's Republic of China on Cooperation in Science and Technology, dated January 31, 1979, as extended and amended (the "S&T Agreement");

In order to promote scientific and technical cooperation and collaboration in the field of environmental protection;

Noting the Memorandum of Understanding signed on October 10, 2010, between the EPA and the Ministry of Environmental Protection of the People's Republic of China;

Have agreed as follows:

Article 1

The Parties shall conduct cooperative activities under this Memorandum of Understanding (MOU) on the basis of equality, reciprocity, and mutual benefit.

Article 2

Scientific and technical cooperation in the environmental field undertaken pursuant to this MOU may involve the following areas:

1. Sustainability Science and Technology
 - a. Life cycle analysis and assessment
 - b. Molecular design for reduced hazard
 - c. Green chemistry and predictive toxicology
 - d. Green engineering
 - e. Clean Manufacturing
 - f. Green communities and green buildings operations

2. Environmental Protection in Transportation
 - a. Controls on pollution and emissions of mobile origins
 - b. Clean Vehicles Technologies
3. Pollution
 - a. Human health and ecological risk assessment
 - b. Air pollution prevention and control technologies
 - c. Risk-based decision making related to environmental protection
 - d. Pollutant monitoring and monitoring methodologies, including data quality management.
4. Waste Management and Resource Reclamation
 - a. Mining and smelting waste management
 - b. Life cycle approaches to manage used and waste electric and electronic devices; and
 - c. Technologies for efficient and sustainable resource reclamation from such wastes.
5. Other Areas
 - a. Watershed management and water and wastewater treatment technologies
 - b. Urban environmental management support systems
 - c. Climate change
 - d. Circular economy
 - e. Food safety related to pesticide use
 - f. Ecological risk assessment and ecosystem services valuation
 - g. Other areas as determined by the Parties

Article 3

Cooperation under this MOU may include the following forms:

1. Exchange or transfer of scientific and technical information in the field of environmental protection;
2. Joint organization of symposia, seminars, workshops, and training;
3. Study tours, exchanges, and temporary assignments of personnel from one Party to the other;
4. Joint scientific publications;
5. Joint projects to demonstrate environmental management approaches and technologies;
6. Cooperative research on subjects of mutual interest;
7. Provision of samples, reagents, materials, data, instruments and components for testing, evaluation and other purposes subject to the laws and regulations of both countries; and
8. Other forms of cooperation as may be determined by the Parties.

Article 4

The Parties shall encourage and facilitate the development of direct contacts between environmental and scientific groups from each country, including through the coordination of cooperation among government agencies, research institutions, business and industry, universities, and other entities, in conducting activities under this MOU as mutually agreed by the Parties.

Article 5

The Parties shall develop annexes to the MOU for selected major areas of cooperation. Each annex shall outline the subject and form of cooperation and shall be deemed an integral part of the MOU. Specific cooperative activities and the terms under which they will be conducted, including financial arrangements, shall be described in project agreements, strategies, and work plans as mutually agreed in writing by the parties.

Article 6

1. The Parties hereby establish a Joint Working Group on Environmental Research (JWGER). The JWGER will be co-chaired at the level of Assistant Administrator of the EPA and at the level of Vice Minister of the MOST, or their designees.
2. All working groups and sub-committees pertaining to environmental research established by the Parties under this MOU will be guided by the JWGER.
3. The Co-chairs, by mutual agreement, may determine the remaining composition of the JWGER and the entities that may attend or participate in JWGER meetings and may establish additional sub-committees or working groups as determined to be necessary to effectively implement this MOU. The specific structures and responsibilities of the sub-committees or working groups, and any modifications thereto, shall be determined by the JWGER.
4. The JWGER will meet at least once every two years. Such meetings shall be held alternately in the United States of America (USA) and the People's Republic of China (PRC). Prior to each meeting of the JWGER, the Parties shall agree to a meeting agenda. The Parties will endeavor to place items on the agenda which cover a wide range of relevant issues such as technical exchange, informational exchange, scientific research, and environmental science and technology policy.
5. Each Party will designate a Liaison Secretary. The Liaison Secretary for the EPA shall be the Deputy Assistant Administrator for International and Tribal Affairs, and the Liaison Secretary for MOST shall be at the Deputy Director General level, or their

designees. The Liaison Secretaries shall serve as the points of contact for their respective Parties for the JWGER and shall supply administrative support for meetings of the JWGER.

Article 7

1. All activities undertaken pursuant to this MOU shall be subject to the applicable laws and regulations of the Parties, as well as the availability of appropriated funds, personnel, and other resources of each Party. Nothing in this MOU, in and of itself, obligates either party to expend appropriations or to enter into any contract, assistance agreement, or interagency agreement, or incur other financial obligations. Each Party agrees not to submit a claim for compensation for services rendered to the other in connection with any activities it carries out in furtherance of this MOU. Any transaction involving reimbursement or contribution of funds between the parties to this MOU will be handled in accordance with applicable laws, regulations, and procedures under separate written agreements.

2. This MOU does not create any right or benefit, substantive or procedural, enforceable by law or equity, by persons who are not a Party to this MOU, against the Parties, their officers or employees, or any other person. This MOU does not direct or apply to any person outside of the Parties.

Article 8

The treatment of intellectual property created or furnished in the course of activities under this MOU, the allocation of rights of such intellectual property, and business-confidential information obtained and/or exchanged pursuant to this MOU, will be governed by the provisions of Annex I (Intellectual Property) of the S&T Agreement.

Article 9

Both Parties agree that no information or equipment requiring protection in the interest of national defense or foreign relations and classified in accordance with its applicable national laws and regulations shall be provided under this MOU. In the event it is subsequently discovered that information or equipment which is known or believed to require such protection is identified as having been furnished inadvertently in the course of cooperative activities pursuant to this MOU, the matter shall be brought immediately to the attention of the appropriate officials and the Parties shall consult to identify appropriate security measures to be agreed upon by the Parties, in writing, and applied to this information and equipment.

Article 10

Article 10

The transfer of unclassified export-controlled information or equipment between the Parties shall be in accordance with the relevant laws and regulations of each Party. If either Party deems it necessary, detailed provisions for the prevention of unauthorized transfer between the Parties or retransfer to a third party of such information or equipment shall be incorporated into the appropriate project agreements or work plans. Such information or equipment shall be marked to identify it as export controlled and the Parties shall consult to identify appropriate restrictions or other requirements regarding the transfer of this information or equipment.

Article 11

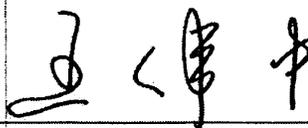
1. This MOU shall enter into force upon signature and shall remain in force for five (5) years, or for as long as the S&T Agreement remains in force, whichever is shorter. Either Party may terminate this MOU upon six months' prior written notification, through diplomatic channels, to the other Party. Such termination shall be without prejudice to the rights that may have accrued to either Party under Annex I to the S&T Agreement. The Parties shall consult regarding the effect of termination on the implementation of ongoing programs and activities agreed to under the MOU prior to the date on which notice of termination was given.

2. Either Party may request in writing, through diplomatic channels, to amend or modify this MOU. Any amendment or modification must be mutually agreed upon in writing by the Parties.

DONE at Cincinnati on this 25 day of June, 2012, in duplicate in the English and Chinese languages, both texts being equally authentic.

FOR THE ENVIRONMENTAL
PROTECTION AGENCY OF THE
UNITED STATES OF AMERICA

FOR THE MINISTRY OF SCIENCE
AND TECHNOLOGY OF THE
PEOPLE'S REPUBLIC OF CHINA



ANNEX 1
Sustainability Science and Technology

Article 1
Authority

1. This annex to the Memorandum of Understanding (MOU) between the Environmental Protection Agency of the United States of America (EPA) and the Ministry of Science and Technology of the People's Republic of China (MOST) on Scientific and Technical Cooperation in the Field of Environmental Protection sets forth a framework for scientific and technical cooperation on sustainability science and technology.
2. Under this annex, agreements related to project activities, including those pertaining to financial and other relevant issues, will be developed by participating institutions. These project agreements shall be negotiated and executed by duly authorized representatives of implementing institutions.

Article 2
Scope

Project activities under this annex may include, but are not limited to, work in the following areas:

1. design and development of new tools, methods, and models for the advancement of molecular design of substances that are less intrinsically hazardous to humans and the environment;
2. life-cycle tools to enable the design and assessment of environmentally benign technologies;
3. new methods in Green Chemistry and Engineering;
4. development of tools for sustainable materials management; and
5. conceptual models and frameworks that allow for the valuation of ecosystem services.

Article 3
Forms of Cooperation

Cooperation under this annex may include, but is not limited to, the following forms:

1. transfer or exchange of scientific and technical information in the field of environmental protection;
2. joint organization of symposia, seminars, workshops and training;

3. study tours, exchanges, and temporary assignments of personnel from one Party to the other;
4. joint scientific publications;
5. joint projects to demonstrate environmental management approaches and technologies;
6. development of data quality management plans for data to be collected by joint projects;
7. cooperative research on subjects of mutual interest;
8. provision of samples, reagents, materials, data, instruments and components for testing, evaluation and other purposes subject to the laws and regulations of both countries; and
9. other forms of cooperation as may be determined by the Parties.

Article 4 Projects

Specific cooperative activities and the terms under which they will be conducted, including financial arrangements, shall be described in project agreements, strategies, and work plans.

Article 5 Designation of Management Officials

1. Management Officials administering activities under this annex will work with participating institutions to facilitate implementation of project agreements, strategies, and work plans.
2. The Management Officials for the United States shall be the Deputy Assistant Administrator for Science for the EPA Office of Research and Development and the Deputy Assistant Administrator for the EPA Office of International and Tribal Affairs.
3. The Management Officials for China are the Deputy Director General of Department of Social Development, MOST, and the Deputy Director General of Department of International Cooperation, MOST.
4. Each Party may designate a replacement Management Official at any time upon written notice to the other Party.