

**MEMORANDUM OF UNDERSTANDING FOR COOPERATION
IN THE AREA OF FOSSIL FUELS
BETWEEN**

**THE U.S. DEPARTMENT OF ENERGY
NATIONAL ENERGY TECHNOLOGY LABORATORY**

AND

POLAND'S CENTRAL MINING INSTITUTE

AND

POLAND'S INSTITUTE FOR CHEMICAL PROCESSING OF COAL

I. PURPOSE

This Memorandum of Understanding (MOU) reflects a mutual interest on the part of the U.S. Department of Energy's National Energy Technology Laboratory (NETL) and the Główny Instytut Górnictwa (GIG, hereafter known as the Central Mining Institute, CMI) and Instytut Chemicznej Przeróbki Węgla (IChPW, hereafter known as the Institute for Chemical Processing of Coal, ICPC) of Poland to pursue collaborative work to advance the technical, environmental, and cost performance of fossil energy technologies.

II. AREAS OF COOPERATION

Cooperative activities may include, but are not limited to, research on base and enabling technologies and assessments of technology options and economics. Cooperative topics may include:

- a) Gasification
- b) Carbon management, especially storage technologies
- c) Chemical looping
- d) Oxy-Combustion
- e) Multi-phase flow processes, including fluidization

Other areas of cooperation may be added by mutual written agreement of each Party's Lead Coordinator.

III. FORMS OF COOPERATION

Specific cooperative projects will be defined in supplemental agreements between the Parties. Cooperation may include:

- a. Exchange of information, publications, reports, technical data, samples, materials, and instruments.
- b. Exchange of scientists, engineers and other specialists for participation in training, project definition activities, research, and technology transfer. Each Party agrees to abide by the other's safety and security requirements.
- c. Jointly funded research and development activities in which NETL, CMI, and ICPC share the cost of performance.

V. LEAD COORDINATOR

Each Party shall designate a Lead Coordinator who shall serve as that Party's principle representative for activities under this MOU.

VI. FINANCIAL COMMITMENTS

NETL's commitments in furtherance of this MOU are contingent on the availability of funds appropriated by the Congress of the United States. CMI's and ICPC's commitments in furtherance of this MOU are contingent on the availability of funds to pursue collaborative activities. Unless otherwise agreed by the Parties, each Party shall be responsible for its own costs incurred in furtherance of this MOU.

VII. INTELLECTUAL PROPERTY


Each Party will retain rights to its own background intellectual property. The allocation of rights to newly generated intellectual property will be determined on a project-by-project basis.

VIII. EFFECTIVE DATE, AMENDMENT AND TERMINATION

This MOU is effective upon the date of the last signature by the Parties and shall remain effective for a 5-year period unless terminated in accordance with the terms set forth herein. The MOU may be modified by mutual consent of the Parties.

Either Party may terminate this MOU by providing written notice to the other Party at least 90 calendar days in advance.

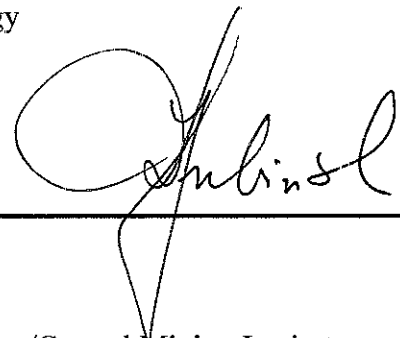
SIGNATORIES



Mr. Carl O. Bauer
Director
National Energy Technology Laboratory
U.S. Department of Energy

23 June 2008

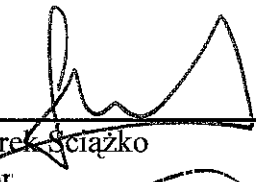
Date



Professor Jozef Dubiński
General Director
Główny Instytut Górnictwa /Central Mining Institute

23 June 2008

Date



Dr. Marek Ściążko
Director
Instytut Chemicznej Przeróbki Węgla/Institute for Chemical Processing of Coal

23 June 2008

Date