COOPERATION AGREEMENT

between

National Mining University of Dnipropetrovsk, Ukraine represented by Professor Giennadiy PIVNIAK, Rector of the University

and

Mineral & Energy Research Institute of the Polish Academy of Sciences represented by Professor Eugeniusz MOKRZYCKI, Director of the Institute

National Mining University (NMU) of Dnipropetrovsk and Mineral & Energy Research Institute of the Polish Academy of Sciences (MEERI PAS) confirming their interest in the development of cooperation in the filed of scientific research to their mutual advantage, have agreed as follows:

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The purpose of this Agreement is to define aims and terms of cooperation between the institutions involved.

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The scope of the Agreement comprises scientific research, cooperation and Ph.D. promotion.

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Both Institutions agree to the following forms of cooperation:

- 1. In the field of scientific research and cooperation:
 - to carry out joint research projects,
 - to exchange scientific and technical information,
 - to exchange scientific results in defined subject areas.
 - to publish the results of research in these areas,
 - to organise joint seminars, conferences, symposia etc.
- 2. In the field of Ph.D. promotion:
 - to create conditions for awarding Ph.D. degree for academics of both Institutions.

§4

The areas of scientific research, mentioned in §3 p. 1, are defined as follows:

- effective use of resources and reserves,
- energy use and energy policies,
- renewable energy tasks incl. geothermal energy issues,
- waste treatment incl. underground storage of hazardous wastes,
- environmental challenges,
- planning and forecasting in the energy and mineral branches incl. economic evaluation and risk analysis,
- modern project management,
- biotechnology in the mining industry,

- restructuring of the mineral sector,
- mineral processing,
- low seam mining technologies,
- underground coal gasification.

§5

- In order to attain specific objectives and tasks under this Agreement, a corresponding working plan may be developed.
- The person responsible for the performance of the NMU's obligations arising from the Agreement is Mr. Roman DICHKOVSKYY, Ph.D. – Deputy V-ce Rector for Scientific Affairs.
- 3. The person responsible for the performance of the MEERI PAS obligations arising from the Agreement is Mr. Piotr SAŁUGA, D.Sc. professor MEERI PAS.

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Both Institutions agree to take necessary steps and ensure mutual support for the purpose of raising funds for he realisation of the provisions of this Agreement.

§7

- 1. This Agreement enters into force when signed and is concluded for five years.
- If the parties, at least 6 months before expiration of this period, do not initiate to extend it, the agreement terminates.
- 3. The Agreement may be terminated after a prior written notice of termination submitted by the June, 30, of the given year with effect at the end of that calendar year.
- 4. All changes and supplements to this Agreement require a written form.

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- 1. The text of this Agreement is prepared in English with four copies.
- 2. Each party will receive two copies.

National Mining University of Dnipropetrovsk, Ukraine Mineral & Energy Research Institute of the Polish Academy of Sciences

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Professor Giennadiy PIVNIAK Rector of the University

Professor Eugeniusz MOKRZYCKI
Director of the Institute

Cracow, MEERI PAS office, April 12, 2013