## **MEMORANDUM OF UNDERSTANDING**

#### BETWEEN

## KOREA ATOMIC ENERGY RESEARCH INSTITUTE

# AND

# **IDAHO NATIONAL LABORATORY**

# FOR TECHNICAL COOPERATION CONCERNING NUCLEAR SCIENCE AND TECHNOLOGY

This Memorandum of Understanding (MOU) is made between Korea Atomic Energy Research Institute (KAERI) and Idaho National Laboratory (INL).

KAERI and INL (hereinafter referred to as the "Participants") are leading institutions of research and development (R&D) for their respective countries. The Participants desire to foster closer scientific and technological cooperation in the development and application of nuclear energy for peaceful purposes.

The Participants recognize the usefulness and the mutual benefit of the technical cooperation and collaborative research activities carried out under the MOU since its signing on June 21, 2011. The recent development of a joint research project to verify the performance and safety of high-density LEU plate type fuel that will be applied to KAERI Ki-Jang Research Reactor (KJRR) requires strengthening of the MOU in scope and duration.

#### PARAGRAPH I – PURPOSE

The general purpose of this MOU is to strengthen the technical cooperation of the Participants by:

- a. Stimulating the initiation and coordination of cooperative activities;
- b. Exchanging scientific and technological information;
- c. Facilitating the exchange of scientists, engineers or other experts, which includes their short- or long-term visits or working assignments to the facilities of the Participants;
- d. Fostering the creation of joint R&D projects;
- e. Planning complementary R&D projects; and
- f. Other cooperative activities as may be identified and determined mutually beneficial by the Participants.

## PARAGRAPH II – FIELDS OF POSSIBLE COOPERATION

The Participants may discuss and plan for cooperation in the fields of:

- a. Generation-IV nuclear energy systems;
- b. Advanced fuel cycle technologies, including pyroprocessing technology;
- c. Advanced light water reactor systems;
- d. Advanced gas reactor systems;
- e. Nuclear generation of hydrogen at large scale;
- f. Utilization technology of research reactors (HANARO and ATR);
- g. Decontamination and decommissioning technology;
- h. Uranium-Molybdenum fuel development;
- i. Post irradiation examination of plate type fuel
- j. Nuclear science and technology; and
- k. Such other areas of cooperation as may be determined by the Participants in writing.

### PARAGRAPH III – FORMS OF COOPERATION

- 1. The activities carried out by the Participants under this MOU may include the following:
  - a. Meetings organized to discuss specific technical topics and cooperative activities;
  - b. Visits of individuals or teams from one Participant to the facilities of the other Participant;
  - c. Exchange of general, scientific and technical information on topics mutually decided upon;
  - d. Planning of joint R&D projects on topics mutually decided upon; and
  - e. Assessing the role of current facilities, or planning for future facilities.
- 2. Any exchange of personnel, proprietary/confidential information, joint R&D projects, or other collaborative efforts that may be identified by the Participants are to be subject to appropriate contracts.

# PARAGRAPH IV – COORDINATION

1. Each Participant is to designate a Principal Coordinator to guide the effective coordination of the cooperative activities. The Principal Coordinators are to be the central points of contact for each Participant, through whom all communication concerning arrangements for cooperation is to be made. The Principal Coordinators are to determine and facilitate the preparation of contracts needed to implement planned cooperative activities.

2. The initial Principal Coordinators are as follows:

For KAERI:	Mr. Jeong Kong LEE
	Head, International Cooperation Team
Address:	Korea Atomic Energy Research Institute
	989-111 Daedeok-daero, Yuseong-gu,
	Yuseong, Daejeon, 305-353
	Republic of Korea
Telephone:	+82 42 868 8248
Facsimile:	+82 42 861 8465
Email:	jklee4@kaeri.re.kr
For INL:	Dr. Mike Goff
For INL:	Dr. Mike Goff Director, Nuclear Nonproliferation Division
For INL: Address:	
	Director, Nuclear Nonproliferation Division
	Director, Nuclear Nonproliferation Division Idaho National Laboratory
	Director, Nuclear Nonproliferation Division Idaho National Laboratory 2525 North Freemont Avenue
	Director, Nuclear Nonproliferation Division Idaho National Laboratory 2525 North Freemont Avenue Idaho Falls, Idaho 83415
Address:	Director, Nuclear Nonproliferation Division Idaho National Laboratory 2525 North Freemont Avenue Idaho Falls, Idaho 83415 United States of America

## PARAGRAPH V- GENERAL CONSIDERATIONS

- 1. Cooperation under this MOU is to commence upon the signature of the Participants and continue for ten (10) years. It may be extended in writing upon mutual consent of the Participants.
- 2. The terms of this MOU may be altered in writing by mutual consent of the Participants. If either Participant wishes to cease its activities under this MOU, it should endeavor to give ninety (90) days advance written notice to the other Participant.
- 3. This MOU does not create legally binding obligations between the Participants. The conduct of cooperative activities contemplated by this MOU is subject to the availability of funding, personnel and other resources. It is understood that each Participant is to be responsible for, and is to provide funding to cover the costs individually incurred in, participating in the cooperation contemplated by this MOU.

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For Korea Atomic Energy Research Institute:

Signature

Name: Dr. Jong Kyung Kim Title: President

<u>0[</u>5 Date

For Idaho National Laboratory:

Signature

Name: Mr. John J. Grossenbacher Title: Laboratory Director

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Date