



MEMORANDUM OF UNDERSTANDING

Between
The Ames Laboratory
and
New Energy and Industrial Technology
Development Organization

Concerning Cooperation in Rare Earths and Other Critical Metals

The Ames Laboratory (AMES), a United States Department of Energy ("DOE") national laboratory operated by Iowa State University under contract DE-AC02-07CH11358, with principal offices located at 311 TASF, Ames, Iowa 50011, United States of America, and the New Energy and Industrial Technology Development Organization (NEDO), with principal offices located at MUZA Kawasaki Central Tower, 1310 Omiya-cho, Saiwai-ku, Kawasaki City, Kanagawa, 212-8554, Japan, referred to collectively herein as the "Participants."

NOTING that the Ames Laboratory's Critical Materials Institute (CMI) is the DOE lead in research, development and deployment of and coordination of research and development on, rare earths and other critical materials. Its work includes fostering international relationships in this area;

NOTING that NEDO is a Japanese Incorporated Administrative Agency with the goal to promote the development and introduction of new energy technologies. Since its establishment, NEDO has undertaken technology development, demonstration projects and system improvement with the aim of improving Japan's global competitiveness and addressing social issues in an integrated manner. NEDO currently has energy projects involving Sandia and Los Alamos National Laboratories. NEDO is now looking to expand its international activities and research and technology development in rare earth and critical metals that will contribute to a stable supply of these materials worldwide;

NOTING further that specifically, AMES and NEDO have some common interests in several research areas in rare earths and other critical materials, i.e., reduction, substitution and recycling, which correspond to the DOE Critical Materials Strategy's three pillars of: 1) diversifying global supply chains to mitigate supply risk; 2) developing material and technology substitutes; and 3) promoting recycling, reuse; as well as the four CMI focus areas of : 1) diversifying supply; 2) developing substitutes; 3) improving reuse and recycling and 4) crosscutting research. In addition, AMES, through CMI, and NEDO are both undertaking risk assessments on critical materials, which overlaps with another focus area of CMI.

SHARING an interest in collaborating in the area of materials science to synergistically augment the scope and expertise of each organization and enhance technology development of both organizations,

The Participants state their understanding as follows:

1. SCOPE OF PLANNED COOPERATION

- 1.1. AMES and NEDO intend to cooperate in the areas of rare earths and critical materials science, including, but not limited to:
 - a. The exchange of publications, academic materials, and other information related to key trends and issues in research and innovation, including the research and development of critical materials;
 - b. Cooperative activities to promote science and technology of both Participants' countries, to be jointly decided by the Participants; and
 - c. Planning for visits and assignments involving exchanges of students and academic staff with the aim to enhance the activities described in 1.1.a. and 1.1.b.
- 1.2. Any collaborative research and development between the Participants is to be conducted under an appropriate contractual agreement.
- 1.3. AMES and NEDO intend to exchange publicly available technical information. If the Participants decide to exchange non-public, proprietary data, they intend to conclude an appropriate and mutually agreeable written agreement therefore.

2. POINTS OF CONTACT

Points of contact for activities anticipated herein are:

	For AMES:	For NEDO:
Name:	Dr. Thomas A. Lograsso	Dr. Tohru Nakamura
Position:	Interim Director	Director
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Name:	Ms. Debra Covey	
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3. GENERAL CONSIDERATIONS

- 3.1. The conduct of cooperative activities contemplated by this Memorandum of Understanding (MOU) is subject to the availability of funding, personnel, and other resources.
- 3.2. Each Participant should conduct the cooperation under this MOU in accordance with applicable laws and regulations to which it is subject, and international agreements to which its Government is a party.
- 3.3. Each Participant is to be responsible for the costs it incurs in participating in cooperative activities under this MOU.
- 3.4. This MOU does not create any legally binding obligations.

4. COMMENCEMENT, MODIFICATION, AND DISCONTINUATION

- 4.1. Cooperative activities under this MOU may commence upon signature, and continue until September 30, 2015, unless sooner discontinued in accordance with paragraph 4.4.
- 4.2. This MOU may be modified by the Participants' mutual consent in writing.
- 4.3. The Participant that wishes an extension of this MOU should inform in writing the other Participant at least four (4) months before the termination of this MOU. Once such written notice is given, the Participants involved should consult with each other to extend this MOU by mutual written agreement pending the advance approval by DOE.
- 4.4. The Participants may discontinue this MOU at any time by mutual consent in writing. Alternatively, a Participant that wishes to discontinue its participation in this MOU should endeavor to provide at least 45 days written notice to the other Participant.

This MOU is made in two originals, one for each Participant.

Fully Executed in Ames, Iowa, United States of America on September 9, 2013.

On Behalf of the Ames Laboratory

On Behalf of New Energy and Industrial
Technology Development Organization


(Signature)


(Signature)

Dr. Thomas A. Lograsso
Interim Laboratory Director

Mr. Fumio Ueda
Executive Director