

MEMORANDUM OF UNDERSTANDING

between

ARGONNE NATIONAL LABORATORY

and

**THE FEDERAL INSTITUTE FOR MATERIALS RESEARCH AND TESTING
(BUNDESANSTALT FÜR MATERIALFORSCHUNG UND-PRÜFUNG
(BAM))**

FOR COOPERATION IN ADVANCED TECHNOLOGIES ASSOCIATED WITH THE BACK END OF THE NUCLEAR FUEL CYCLE

Argonne National Laboratory (Argonne), operated by UChicago Argonne, LLC under Prime Contract No. DE-ACO2-06CH11357 with the U.S. Department of Energy (DOE) in Lemont, IL, USA, and Federal Republic of Germany, represented by the Federal Minister for Economic Affairs and Energy, the latter represented by the President of the Bundesanstalt für Materialforschung und -prüfung (BAM) in Berlin, Germany, collectively hereinafter referred to as the "Participants",

Have reached the following understanding:

Section 1: INTRODUCTION

The objective of this MOU is to promote cooperation among scientists and specialists at Argonne and BAM and to establish a framework for collaboration in the field of advanced technologies associated with the back end of the nuclear fuel cycle with application to:

- (i) long-term integrity and safety of transport and storage packages for radioactive materials and their anticipated performance for long-term storage and transportation,
- (ii) aging mechanisms that may result in degradation of materials that are affected by temperature, radiation, and the service environments, and
- (iii) investigation and characterization of materials under conditions of extended storage and transportation.

Section 2: COLLABORATIVE ACTIVITIES

Collaborative activities between the Participants may be implemented through:

- (1) promotion of joint scientific conferences, workshops and similar meetings

- (2) promotion of joint research activities;
- (3) exchange of scientific and technical information;
- (4) exchange of visits by scientists, specialists, graduate/post graduated/PhD students.

The conduct of the foregoing activities is to be the subject of appropriate written contractual agreement(s), and all appropriate required approvals.

Section 3: POINTS OF CONTACT

Each Participant should designate one or more Lead Coordinators, to serve as its principal representative(s) for all activities conducted under this Memorandum of Understanding (MOU), including identifying planned areas of cooperation, coordinating cooperation between the Participants, and identifying available resources (including funding) for potential collaborative activities under this MOU. The Initial Lead Coordinators are:

For ARGONNE:

Name: Dr. Yung Y. Liu

Division: Decision and Information Sciences Division

Email: yliu@anl.gov

Telephone: 630.252.5127

For BAM:

Name: Dr. Holger Völzke

Division 3.4 Safety of Storage Containers

Email: holger.voelzke@bam.de

Telephone: +49 30 8104 1340

Section 4: GENERAL CONSIDERATIONS

- (1) The conduct of cooperative activities contemplated by this MOU is subject to the availability of funding, personnel, and other resources. Each Participant is to be responsible for the costs it incurs in participating in cooperative activities under this MOU.
- (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 party.
- (3) Cooperative activities under this MOU may commence upon signature by the Participants and continue for a 5-year period unless discontinued in accordance with paragraph (4) of this Section.
- (4) The Participants may discontinue this MOU at any time in writing. A Participant that wishes to discontinue its participation in this MOU should endeavor to provide at least ninety (90) days written notice to the other Participant.

(5) This MOU may be modified in writing by mutual consent of the Participants, and may be extended for additional periods.

(6) The purpose of this MOU is only to express the intentions of the Participants and is not intended to be legally binding on either Participant.

For Argonne National Laboratory
(Argonne):

Lemont, January 19, 2020

Signature Paul K. Kearns

Name: Paul K. Kearns

Title: Director.

Argonne National
Laboratory

For Bundesanstalt für Materialforschung
und -prüfung (BAM):

Berlin, 08.01.2020

Signature: Ulrich Panne

Name: Prof. Dr. rer. nat. habil. Ulrich Panne

Title: President



Bundesanstalt für
Materialforschung
und -prüfung

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