Implementing Annex per Memorandum of Understanding

between

the Federal Ministry of Education and Research of the Federal Republic of Germany

and

the United States Department of Energy for

the cooperation of research and development to support a decision on the acceptance and disposition of graphite-based fuel elements by

the United States of America

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## The Federal Ministry of Education and Research of the Federal Republic of Germany

and

### the United States Department of Energy -

implementing Article 6 of the Agreement of 20 February 1998 between the Federal Ministry of Education and Research of the Federal Republic of Germany and the United States Department of Energy on Cooperation in the Area of Research, Science, Technology and Development in the Energy Field signed by Dr Jürgen Rüttgers and Federico F. Peña in Washington,

in view of the European Union Council Decision approving the conclusion, by the European Commission, of the Agreement between the United States Department of Energy and the European Atomic Energy Community represented by the European Commission in the field of nuclear material safeguards and security research and development of 24 June 2010 (10872/10), and the Agreement for cooperation in the peaceful uses of Nuclear Energy between the European Atomic Energy Community and the United States of America, November 7, 1995, herein after referred to as "Agreement for Cooperation",

prompted by the desire to contribute to the objective of Highly Enriched Uranium (HEU) minimization in accordance with the objectives of the Nuclear Security Summits in 2010 and 2012,

moved by the desire to create the technical basis that would aid in making a decision on the acceptance and disposition of graphite-based spent nuclear fuel from German research reactors to the USA, which were produced with HEU supplied by the USA, and in order to ensure the peaceful use of the nuclear fuels, in particular to hinder the potential proliferation of such material in the world, by reducing the available HEU, agree as follows:

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#### **PURPOSE**

This Implementing Annex per Memorandum of Understanding (IA) between the Federal Ministry of Education and Research of the Federal Republic of Germany and the United States Department of Energy (hereinafter referred to as the "parties") serves the purpose of affirming cooperation in the area of research and development (R&D) for graphite-based spent nuclear fuel (hereinafter referred to as the "Material"), in order to make a decision on the acceptance and disposition of the Material in the United States possible.

### RESPONSIBILITY UNDER THIS IA

- (1) The parties aim to make a decision on the acceptance and disposition of the Material to the USA no later than December 31, 2013.
- (2) The results of the proposed R&D would supplement the feasibility evaluation, conducted by the United States Department of Energy, which would assist making a decision on the acceptance and disposition of the Material.
- (3) The parties will regularly share information on all new political, legal, technical and economic aspects that might be of relevance to the acceptance and disposition of this Material by the United States Department of Energy.
- (4) A first meeting on the status of implementation of this IA should take place no later than 3 months after its entry into force.
- (5) This cooperation and the decision to be prepared on its basis will serve in particular to hinder the potential proliferation of such Material in the world by reducing the available HEU. The Material, if returned, will be studied and used for peaceful purposes only in accordance with the Agreement for Cooperation.

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#### TERMS AND CONDITIONS

- (1) The Federal Ministry of Education and Research shall ask Forschungszentrum Jülich to participate in this IA and guarantee its implementation in all technical matters.
- (2) The parties agree to set up working groups to address issues (e.g. technical, legal and logistical issues). The parties will appoint the members of the groups and establish their responsibilities in due time or no later than 2 weeks after signing the IA. The working groups have to identify the relevant questions necessary for the acceptance and disposition of the Material by November 30, 2012. Each working group is responsible for creating a roadmap for resolution of the relevant issues to make a decision on the Material by December 31, 2013.
- (3) The R&D work will, as a rule, be conducted by the Department of Energy (or its contractors through the Work For Others process) or Forschungszentrum Jülich and participation of others as deemed appropriate by both parties.
- (4) Cooperation between the parties under this IA takes place in line with the parties' respective laws and other provisions.
- (5) The costs of the agreed research & development and all other necessary work done by Savannah River National Laboratory and Forschungszentrum Jülich shall be borne by Forschungszentrum Jülich and will be managed through a Work For Others Agreement. The commitment of the parties is subject to the availability of funds and personnel.
- (6) All questions regarding the interpretation of this IA shall be solved by mutual agreement of the parties.
- (7) This IA shall not affect any other agreements on cooperation between the parties that are in place when this IA enters into force.
- (8) Both parties shall agree amicably on the publication of scientific findings resulting from this endeavor subject to applicable proprietary information, information disclosure prohibitions and intellectual property laws of both signatory countries and international law as applicable.
- (9) The parties intend to coordinate and agree in advance on measures informing the public.

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# EFFECTIVE DATE/ DURATION/ TERMINATION DATE

- (1) This IA shall enter into force on the day of signature thereof and shall be valid until December 31, 2013. It can be extended by mutual agreement of the parties.
- (2) The parties can amend this IA by mutual agreement in writing.
- (3) Insofar as either party determines that the purpose of this IA cannot be reached for technical, legal or political reasons, this IA may be terminated in writing by either party at any time subject to two months previous notice.
- (4) Joint activities and experiments that are not yet concluded upon termination of this IA can be continued and concluded under this IA if the parties agree in writing.

Done in Bonn on October 18, 2012, in duplicate in the German and English languages, only the wording of the English version being authentic.

For the Federal Ministry of Education and Research of the Federal Republic of Germany

Deputy Director General

Directorate 72: Sustainability, Climate Energy

For the United States Department of Energy

Edgardo C. DeLeon, Jr.

Director. Office of Nuclear Materials Disposition

Office of Environmental Management