Technical Meeting on Advanced Fuel Cycles for Waste Burden Minimization

Conducted within the framework of the IAEA Technical Working Group on Nuclear Fuel Cycle Options and Spent Fuel Management

IAEA Headquarters
Vienna, Austria

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Information Sheet and Call for Papers

A. Introduction and Background

In order to ensure the sustainable development of nuclear energy, research and development related to fuel cycle options are underway in many Member States of the International Atomic Energy Agency (IAEA). To achieve long term sustainability, the amount as well as the radioactivity of the waste to be finally disposed have to be significantly reduced. Technologies should be developed which would effectively reduce the volume of the waste to be treated and/or managed, reduce waste heat and toxicity, recycle actinides and reuse fission products following partitioning and transmutation strategies, etc. Recognizing the potential role of nuclear fuel cycle options, this meeting will focus, in particular, on the current status of development of various relevant technologies and their readiness for the implementation of advanced fuel cycle strategies with a particular emphasis on their role in reducing the waste burden at the disposal stage.
B. Objectives and Scope

The objectives of the meeting are:

• To review and update participants on fuel cycle options that can lead to a minimization of the waste burden;
• To discuss spent fuel processing technologies in terms of waste strategies;
• To examine innovative methods for recycling/reusing the useful materials;
• To discuss the transmutation of transuranic (TRU) nuclides, minor actinides (MAs) and long lived fission products (LLFPs); and
• To consider the technological readiness of various fuel cycle options and the challenges involved in their implementation.

C. Provisional Programme

1. State of the art of fuel cycle options
2. State of the art of advanced separation technologies
3. Target materials to be recycled or reused for the purpose of waste burden minimization
4. Feasibility of transmutation of TRU nuclides, MAs and LLFPs
5. Economics of MA transmutation
6. Recovery of platinum group metals and useful fission products
7. Strategies and technologies aimed at waste burden minimization

D. Participation

Participation is solicited from representatives of governmental, national and international organizations, research centres, universities, and industry. To ensure maximum effectiveness in the exchange of information, the participants should be persons actively involved in the subject of the meeting.

Participants should complete the attached Participation Form (Form A) as soon as possible and send it to the competent official authority (Ministry of Foreign Affairs or National Atomic Energy Authority) for transmission to the IAEA Secretariat, to arrive not later than 22 April 2016. The designation of a participant will be accepted only if forwarded by the Government of an IAEA Member State or by an organization invited to participate.

The meeting is, in principle, open to all officially designated persons. The IAEA, however, reserves the right to limit participation should this become necessary due to limitations imposed by the
available seating capacity. It is therefore recommended that interested persons take the necessary steps to obtain their official designation as early as possible.

A preliminary meeting agenda will be sent to the participants when the completed Participation Forms have been received.

E. Summaries and Papers

The Participation Form (Form A) should be submitted through the appropriate official channels with an indication as to whether or not the designated participant intends to present a paper. Participation Forms must be transmitted to the IAEA by 22 April 2016, together with a copy of a one-page abstract. The abstract will be used to select papers (based on coherence with the objectives and scope of the meeting, novelty and significance of results, clarity of presentation, etc.) and to establish the final programme. Authors will be notified of the status of their paper by the IAEA.

A digital version of the paper on a disk (or CD-ROM) in Microsoft Word format is desirable to facilitate editing and publication of the proceedings. All papers — apart from invited reviews — must present original work; they should not have been published elsewhere.

Detailed instructions for preparation of the manuscript for publication will be provided to authors upon notification of acceptance of their paper. Authors should send in advance the presentation material in electronic form.

Authors of accepted papers will be allowed approximately 30 minutes for their presentations, including a discussion period. A full paper (4 to 10 pages in length, double-spaced, and including figures, graphs, and/or tables) will be published by the IAEA in the form of an IAEA Technical Document (TECDOC). Further instructions will be sent directly to authors of accepted papers as soon as the selection has been made. Both an overhead and a video projector, as well as a screen for viewgraphs, will be provided. Any additional equipment requirements should be noted on the attached Participation Form. The meeting agenda will be provided to the participants sufficiently in advance of the meeting for them to plan their presentation.

F. Venue

The meeting will be held at the IAEA’s Headquarters in Vienna, Austria, specifically in Meeting Room C0454, Building C, of the Vienna International Centre (VIC). Participants are advised to arrive one hour prior to the convening time of the meeting to allow for timely registration. Please note that you must present an official photo identification document in order to be admitted to the VIC premises.

G. Working Language

The working language of the meeting will be English, with no interpretation provided. All communications, abstracts and papers must be in this language.
H. Visas

Should you require a visa for entering Austria, please contact the nearest consular representative of Austria as early as possible.

Please be aware that when applying for a visa, you may be asked to show evidence of personal insurance coverage valid during your travel. It is your responsibility to make arrangements for health insurance coverage.

Austria is a Schengen State and therefore persons who require a visa will have to apply for a Schengen visa at least four weeks before entry into Austria. In States where Austria has no diplomatic mission, visas can be obtained from the consular authority of a Schengen Partner State representing Austria in the country in question. [At present the 25 Schengen States are: Austria, Belgium, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden and Switzerland.]

Only in exceptional cases is the IAEA able to assist participants who encounter difficulties in obtaining a visa. In this regard, all necessary information (date of birth, nationality, type of passport, passport number, issuance and validity of passport, length of stay, arrival date, flight details, and a short description of the problem encountered) should be sent to reach the IAEA at least four weeks before the meeting. After that date the IAEA will not be able to assist you due to Schengen regulations. Please be aware that the validity of a Schengen visa cannot be extended once you are in a Schengen State.

I. Expenditures and Grants

In accordance with the established rules, governments, national authorities, private companies or individual sources of funding are expected to bear the travel and other costs of designated participants in the meeting. Limited funds are, however, available to help cover the cost of participants from Member States eligible to receive technical assistance under the IAEA’s technical cooperation programme. Such assistance can be offered, upon specific request, to one participant per country provided that, in the IAEA’s view, the participant on whose behalf assistance is requested will make an important contribution to the meeting. The application for financial support should be made at the time of designating the participant.

The Secretariat wishes to state that compensation is not payable by the IAEA for any damage to or loss of the experts’ personal property. However, for the period of the experts’ engagement with the IAEA, including travel between their residence and the duty station, the designated experts will be covered under the IAEA’s insurance policy for permanent total disablement or death resulting from service-incurred accidents or illness up to a maximum of €100 000, for permanent partial disablement resulting from service-incurred accidents or illness up to a maximum of €100 000 and for medical expenses up to a maximum of €20 000 plus €10 000 for supplementary travel and accommodation expenses in case of illness or injury resulting from service-incurred accidents or illness, in accordance with the terms of the IAEA’s relevant insurance policy. This insurance coverage only covers accidents and illnesses insofar as they clearly result from attendance at an IAEA meeting. The IAEA
recommends that the experts also make arrangements for private insurance coverage on an individual basis.

J. Organization

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Subsequent correspondence on scientific matters should be sent to the Scientific Secretary and correspondence on other matters related to the meeting to the Administrative Secretary.