



Atoms for Peace and Development

الوكالة الدولية للطاقة الذرية

国际原子能机构

International Atomic Energy Agency

Agence internationale de l'énergie atomique

Международное агентство по атомной энергии

Organismo Internacional de Energía Atómica

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The Secretariat of the International Atomic Energy Agency (IAEA) presents its compliments to the IAEA's Member States and has the honour to draw their attention to the **Tenth Joint IAEA–GIF Technical Meeting/Workshop on the Safety of Liquid Metal Cooled Fast Reactors** (hereinafter referred to as “event”) to be held at Brasimone Research Centre in Camugnano, Italy, from **28 June to 1 July 2022**.

The purpose of the event is to share information on areas of mutual interest of the IAEA and the Generation IV International Forum (GIF) in relation to the safety and technology of liquid metal cooled fast reactors, and to foster collaboration and synergies between their respective programmes.

The attached Information Sheet provides further details of the event.

The event will be held in English.

Member States are invited to designate one or more participants to represent the Government at this event. Member States are strongly encouraged to identify suitable women participants.

The IAEA is generally not in a position to bear the travel and other costs of participants in the event. The IAEA has, however, limited funds at its disposal to help meet the cost of attendance of certain participants. Upon specific request, such assistance may be offered to normally one participant per country, provided that, in the IAEA's view, the participant will make an important contribution to the event. The application for financial support should be made at the time of designating the participant(s) using the attached Grant Application Form (Form C).

It should be noted that compensation is not payable by the IAEA for any damage to or loss of personal property. The IAEA also does not provide health insurance coverage for participants in IAEA events. Arrangements for private insurance coverage on an individual basis should therefore be made. The IAEA will, however, provide insurance coverage for accidents and illnesses that clearly result from any work performed for the IAEA.

Designations should be submitted to the IAEA through the competent national authority (Ministry of Foreign Affairs, Permanent Mission to the IAEA or National Atomic Energy Authority) not later than **28 March 2022** using the attached Participation Form (Form A). Completed and authorized Participation Forms should be sent either by email to: Official.Mail@iaea.org or by fax to: +43 1 26007 (no hard copies needed). Copies should be sent by email to the Scientific Secretaries of the event, Mr Simone Massara (Email: S.Massara@iaea.org) and Mr Javier Yllera (Email: J.Yllera@iaea.org), both of the Division of Nuclear Installation Safety, Department of Nuclear Safety and Security, and to the Administrative Secretary, Ms Leticia Sedlazek (Email: L.Sedlazek@iaea.org). The Scientific Secretaries of the event will liaise with the participants directly concerning further arrangements, including travel details, as appropriate, once the official designations have been received.

Should Governments wish, in addition, to appoint one or more observers to assist and advise the designated participants, they are kindly requested to inform the IAEA of the names and contact details of any such observers by the above date. In accordance with the established rules, Governments are expected to bear the cost of attendance of any observers they may send to IAEA events. Compensation is not payable by the IAEA for any damage to or loss of observers' personal property or for illness, injury or death occurring while travelling to or in connection with their attendance at IAEA events.

The Secretariat of the International Atomic Energy Agency avails itself of this opportunity to renew to the IAEA's Member States the assurances of its highest consideration.



2022-01-07

Enclosures: Information Sheet
 Participation Form (Form A)
 Form for Submission of a Paper (Form B)
 Grant Application Form (Form C)



IAEA

International Atomic Energy Agency

Atoms for Peace and Development

Tenth Joint IAEA–GIF Technical Meeting/Workshop on the Safety of Liquid Metal Cooled Fast Reactors

**Hosted by the
Government of Italy**

**through the
Brasimone Research Centre**

Camugnano, Italy

28 June–1 July 2022

Ref. No.: EVT2101694

Information Sheet

Introduction

The International Atomic Energy Agency (IAEA) and the Generation IV International Forum (GIF) have jointly committed to collaboration between their respective programmes, and to share information in selected areas of mutual interest. One of the key areas of emphasis in both the GIF and the IAEA programmes is the safety of liquid metal cooled fast reactors (LMFRs) including sodium cooled fast reactors (SFRs) and lead or lead-bismuth eutectic (LBE) cooled fast reactors (LFRs). A particularly important area of mutual interest is the harmonization of safety approaches, safety requirements, Safety Design Criteria (SDC) and Safety Design Guidelines (SDG), as well as the applicability of IAEA safety standards for the next-generation advanced LMFRs under development worldwide.

Within the framework of this collaboration, nine joint IAEA–GIF Technical Meetings/workshops on the safety of SFRs have been held since 2010.

The development of SDC for SFRs was initiated by the GIF Policy Group in 2011 to harmonize safety requirements among the design organizations represented within the GIF, and to quantify the high level of safety expected of Generation IV systems. The SDC, which are derived from the Generation IV

programme goals and are developed consistently with the structure of the IAEA safety standards, were compiled into a Phase 1 report first presented and discussed at the third IAEA–GIF workshop, and then issued by the GIF in May 2013.

The GIF Policy Group decided, in July 2013, to invite regulators from GIF member countries as well as experts from some international organizations (the IAEA, the Nuclear Energy Agency of the Organisation for Economic Co-operation and Development (OECD/NEA), and the Multinational Design Evaluation Programme) to review the Phase 1 report, and to proceed with the Phase 2 work intended to, firstly, review the SDC for SFRs and, secondly, to develop detailed SDG that would support the implementation of the general criteria. At the same time, the GIF and the IAEA agreed to invite design organizations currently developing innovative SFRs to present engineering solutions that would be able to comply with the SDC. These topics were object of discussions at the fourth, fifth and sixth IAEA–GIF workshops, held in 2014, 2015 and 2016.

The final version of the GIF report on “Safety Design Guidelines on Safety Approach and Design Conditions for Generation IV Sodium-cooled Fast Reactor Systems” and the GIF draft report on “Safety Design Guidelines on Structures, Systems and Components for Gen-IV SFR Systems” were discussed in depth at the seventh, eight and ninth IAEA–GIF workshops held in 2018, 2019 and 2021.

In 2018 the title of this series of meetings/workshops has been expanded to cover not only SFRs but also the other types of liquid metal coolants being considered by the GIF, including lead and LBE cooled fast reactors. In 2021 the “Safety Design Criteria for Generation IV Lead-cooled Fast Reactor System” were developed by the GIF and eventually made the object of a technical review by the IAEA.

The focus of this tenth technical meeting/workshop will be twofold: i) building on the outcome of previous abovementioned IAEA-GIF technical meetings on the safety of LMFRs, to provide a platform to GIF members for the exchange of technical information on the development and implementation of SDC and SDG for LMFRs; ii) to focus on key areas of safety of LMFRs highlighted as important during the review of applicability of the IAEA Safety Standards to novel advanced reactors undertaken by the IAEA and international experts in 2020-2021. This review concluded that although many of the Safety Standards are applicable to these technologies, it is essential to build detailed technical knowledge about the safety characteristics of different non-water-cooled reactor types, such as LMFRs, including SMRs of these types. Experts from GIF Member States can support the development of an international repository of knowledge to enhance the global understanding of the safety related issues and the safety demonstration of these technologies and to support the future development of the IAEA safety standards.

Objectives

The main objectives of this technical meeting/workshop are to:

- Share information on the development of SDC and SDG for LMFRs by the GIF and collect feedback on the implementation of SDG for SFRs and SDC for LFRs by the designers of innovative LMFRs concepts;
- Share information on the safety approach and on design solutions implemented in LMFRs in operation and on innovative design solutions under development for new LMFRs;
- Share experience in the safety assessment and on the development of licensing frameworks for LMFRs.

Target Audience

The event is targeted at professionals from organizations involved in the design of nuclear power plants (NPPs), operating organizations, nuclear regulatory authorities, technical support organizations, and research institutions that are engaged in activities related to or in support of the development or the regulation of LMFR designs.

The event is open to representatives of all Member States with an active nuclear power programme, including those from embarking countries in an advanced stage of their nuclear programme.

Working Language(s)

English.

Topics

Topics to be discussed will include:

- Experience in the consideration of SDG for SFRs and SDC for LFRs by the designers of LMFRs.
- Development and qualification of innovative design features, including experimental programmes supporting the validation of numerical computer codes supporting the design and safety assessment of LMFRs.
- Relevant operating experience related to LMFRs.
- Exploring the creation of a repository of knowledge addressing safety aspects of LMFRs (in operation as well as in design phase), on topics such as:
 - Identification of safety functions;
 - Design basis for structures, systems and components important to safety;
 - Application of the concept of practical elimination of large or early radioactive releases;
 - Justification of meeting acceptance criteria for the different plants states;
 - Consideration of postulated initiating events in operational states and events triggered by internal and external hazards;
 - Application of deterministic safety analysis and probabilistic safety assessment;
 - Outcomes and experiences of the regulatory review of LMFRs.

Participation and Registration

All persons wishing to participate in the event have to be designated by an IAEA Member State or should be members of organizations that have been invited to attend.

In order to be designated by an IAEA Member State, participants are requested to send the **Participation Form (Form A)** to their competent national authority (e.g. Ministry of Foreign Affairs, Permanent Mission to the IAEA or National Atomic Energy Authority) for onward transmission to the IAEA by **28 March 2022**. Participants who are members of an organization invited to attend are requested to send the **Participation Form (Form A)** through their organization to the IAEA by the above deadline.

Selected participants will be informed in due course on the procedures to be followed with regard to administrative and financial matters.

Participants are hereby informed that the personal data they submit will be processed in line with the [Agency's Personal Data and Privacy Policy](#) and is collected solely for the purpose(s) of reviewing and assessing the application and to complete logistical arrangements where required.

Papers and Presentations

The IAEA encourages participants to submit papers and provide presentations on the work of their respective institutions that falls under the topics listed above.

Participants who wish to submit a paper and provide presentations are requested to submit an abstract of their work. The abstract will be reviewed as part of the selection process for presentations. The abstract should be in A4 page format, should extend to no more than two pages (including figures and tables), and should not exceed 1500 words. It should be sent electronically to Mr Javier Yllera and to Mr Simone Massara, the Scientific Secretaries of the event (see contact details below), not later than **28 March 2022**. Authors will be notified of the acceptance of their proposed presentations by **10 May 2022**.

In addition, participants have to submit the abstract together with the Participation Form (Form A) to their competent national authority (e.g. Ministry of Foreign Affairs, Permanent Mission to the IAEA or National Atomic Energy Authority) or their organization for onward transmission to the IAEA not later than **28 March 2022**.

Expenditures and Grants

No registration fee is charged to participants.

The IAEA is generally not in a position to bear the travel and other costs of participants in the event. The IAEA has, however, limited funds at its disposal to help meet the cost of attendance of certain participants. Upon specific request, such assistance may be offered to normally one participant per country, provided that, in the IAEA's view, the participant will make an important contribution to the event.

The application for financial support should be made using the **Grant Application Form (Form C)**, which has to be stamped, signed and submitted by the competent national authority to the IAEA together with the **Participation Form (Form A)** by **28 March 2022**.

Venue

The event will be held at the [CIEB building](#) of the [ENEA Brasimone research centre](#), Località Lago del Brasimone, Camugnano (Italy).

Participants must make their own travel and accommodation arrangements.

The meeting agenda and local details, together with information on local arrangements, will be sent to designated participants when the completed participation forms have been received.

Visas

Participants who require a visa to enter Italy should submit the necessary application as soon as possible to the nearest diplomatic or consular representative of Italy.

IAEA Contacts

Scientific Secretaries:

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Department of Nuclear Safety and Security
International Atomic Energy Agency
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Fax: +43 1 26007 22687
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Subsequent correspondence on scientific matters should be sent to the Scientific Secretaries and correspondence on other matters related to the event to the Administrative Secretary.

Participation Form

Tenth Joint IAEA–GIF Technical Meeting/Workshop on the Safety of Liquid Metal Cooled Fast Reactors

Camugnano, Italy

28 June–1 July 2022

To be completed by the participant and sent to the competent national authority (e.g. Ministry of Foreign Affairs, Permanent Mission to the IAEA, or National Atomic Energy Authority) of his/her country for subsequent transmission to the International Atomic Energy Agency (IAEA) either by email to: Official.Mail@iaea.org or by fax to: +43 1 26007 (no hard copies needed). Please also send a copy by email to the Scientific Secretaries S.Massara@iaea.org and J.Yllera@iaea.org and to the Administrative Secretary L.Sedlazek@iaea.org.

Participants who are members of an invited organization can submit this form to their organization for subsequent transmission to the IAEA.

Deadline for receipt by IAEA through official channels: 28 March 2022

Family name(s): (same as in passport)	First name(s): (same as in passport)	Mr/Ms
Institution:		
Full address:		
Tel. (Fax):		
Email:		
Nationality:	Representing following Member State/non-Member State/entity or invited organization:	
If/as applicable: Do you intend to submit a paper? Yes <input type="checkbox"/> No <input type="checkbox"/> Would you prefer to present your paper as a poster? Yes <input type="checkbox"/> No <input type="checkbox"/> Title:		

Participants are hereby informed that the personal data they submit will be processed in line with the [Agency's Personal Data and Privacy Policy](#) and is collected solely for the purpose(s) of reviewing and assessing the application and to complete logistical arrangements where required. Further information can be found in the [Data Processing Notice](#) concerning IAEA InTouch+ platform.

Form for Submission of a Paper

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Deadline for receipt by IAEA through official channels: 28 March 2022

Title of the paper:		
If applicable: Abstract ID in IAEA-INDICO:		
Family name(s) and first name(s) of all author(s): e.g. Smith, John	Scientific establishment(s) in which the work has been carried out	City/Country
1.		
2.		
3.		
Family name and first name(s) of author presenting the paper: e.g. Smith, John	Mr/Ms:	
Mailing address:		
Tel. (Fax):		
Email:		

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Furthermore, I herewith declare:

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- that any permissions and rights to publish required for third-party content, including but not limited to figures and tables, have been obtained, that all published material is correctly referenced; and
- that the material submitted to the IAEA does not contain any libellous or other unlawful statements and does not contain any materials that violate any personal or proprietary rights of any person or entity.

Date:

Signature of main author:

Grant Application Form

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Family name(s): (same as in passport)	First name(s): (same as in passport)	Mr/Ms:
Mailing address:		Tel.:
		Fax:
		Email:
Date of birth (yyyy/mm/dd):	Nationality:	

1. Education (post-secondary):

Name and place of institution	Field of study	Diploma or Degree	Years attended	
			from	to

2. Recent employment record (starting with your present post):

Name and place of employer/ organization	Title of your position	Type of work	Years worked	
			from	to

3. Description of work performed over the last three years:

4. Institute's/Member State's programme in field of event:

Date: _____ Signature of applicant: _____

Date: _____ Name, signature and stamp of Ministry of Foreign Affairs,
 Permanent Mission to the IAEA or National Atomic Energy
 Authority _____