



# **Technical Meeting on the Management of Spent Fuel at Shutdown Reactor Sites, Including those to be Shut Down Prematurely**

**IAEA Headquarters  
Vienna, Austria**

**11–13 June 2018**

**Ref. No.: EVT1701645**

## **Information Sheet**

### **A. Introduction**

There have been circumstances that have led to the premature or unplanned shutdown of nuclear power reactors. Once the reactors are shut down and defueled, their spent fuel is either managed on-site or managed off-site at away-from-reactor storage facilities, typically using a dry storage technology. An International Atomic Energy Agency (IAEA) consultancy meeting was held in February 2017 to discuss the operating experience of managing spent fuel at shutdown nuclear power reactor sites and to better understand the consequences of unplanned or premature shutdown. Important issues identified at that meeting included:

- Transition from power reactor operator to storage operator;
- Management of partially burnt or fresh fuel;
- Management of damaged fuel;
- Institutional issues, such as taxation of storage and loss of reactor income;
- Level of investment in the event of a shutdown situation;

- Management of pool stocks as reactor goes towards shutdown;
- Larger stores being required as cask payloads reduce.

This Technical Meeting is aimed at discussing the operating experience of managing spent fuel at shutdown reactor sites in order to collect the lessons learned, explore the issues raised at the earlier Consultancy Meeting, enable an exchange of ideas between current operators, and inform Member States that are at the early stages of reactor shutdown planning or have limited contingency for unplanned permanent reactor shutdown.

The need to develop a better understanding of the consequences of unplanned and premature shutdown of reactors to inform the industry has been recognized by the Technical Working Group on Nuclear Fuel Cycle Options and Spent Fuel Management (TWG-NFCO). The TWG-NFCO has also recognized that there are issues associated with spent fuel management at sites where the power reactor and the at-reactor spent fuel pool have been decommissioned — particularly the ability to rework storage packages if a fault were to develop that required handling or detailed inspection of the spent fuel.

## **B. Objectives**

The main objectives of this meeting are to:

- Collect and disseminate technical information on spent fuel storage systems at shutdown reactor sites and practices, particularly lessons learned from Member States;
- Explore the issues raised at the Consultancy Meeting of February 2017;
- Share progress on research and development on the storage of spent fuel at shutdown reactor sites and identify potential gaps;
- Collect information to update global inventories of spent fuel at shutdown reactor sites.

Information gathered at this meeting will be consolidated into an IAEA Technical Document (TECDOC) on spent fuel management at shutdown sites and the issues related to the premature shutdown of nuclear power reactors.

## **C. Outcomes**

The main expected outcomes of the meeting are to improve Member States' understanding and capabilities to address the challenges of effective and safe management of their spent nuclear fuel stored at shutdown reactor sites, and to enhance their preparedness for premature or unplanned reactor shutdown.

## D. Target Audience

Participation is solicited from representatives of governmental, national and international organizations, research centres, universities and industry. Participation is specifically sought from persons currently involved in the management of fuel at shutdown reactor sites, or developing strategies for planned reactor shutdowns. It is expected that the material presented will be of interest to Member States that do not currently have a storage strategy for unplanned reactor shutdowns.

## E. 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.

## F. Application Procedure

Participants should complete the attached **Participation Form (Form A)** 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 **Wednesday, 16 May 2018**. 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 once the completed Participation Forms have been received.

## G. Papers and Presentations

The IAEA encourages participants to give presentations on the work of their respective institutions that would meet the objectives of the meeting outlined in Section B above.

Registered participants who wish to give 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 and should extend to no more than 1 page. It should be sent electronically to the Scientific Secretary of the meeting, Ms Laura McManniman (see contact details in Section K below), not later than **Wednesday, 16 May 2018**, along with the completed **Form for Submission of a Paper (Form B)**, through the competent national authority (e.g. Ministry of Foreign

Affairs or Permanent Mission to the IAEA).

## H. 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. If Governments wish to apply for a grant on behalf of one of their experts, they should address specific requests to the IAEA to this effect. Governments should ensure that applications for grants are submitted by **Wednesday, 16 May 2018** using a signed **Grant Application Form (Form C)**. Approved grants will be issued in the form of a lump sum payment that usually covers **only part of the cost of attendance**.

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.

## I. Venue

The meeting will be held at the IAEA's Headquarters in Vienna, Austria and will start at 9.30 a.m. on **Monday, 11 June 2018**. Participants are advised to arrive one hour prior to the convening time of the meeting to allow for timely registration. Participants will need to present an official photo identification document in order to be admitted to the VIC premises.

The following IAEA web page can be accessed for more detailed information on Vienna and the VIC:  
<http://www-pub.iaea.org/iaeameetings/GeneralInfo/Guide/VIC>

## **J. Visas**

Participants who require a visa to enter Austria should submit the necessary application to the nearest diplomatic or consular representative of Austria at least four weeks before they travel to Austria. Since Austria is a Schengen State, persons requiring a visa will have to apply for a Schengen visa. 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.

## **K. Organization**

### **Scientific Secretary**

#### **Ms Laura McManniman**

Division of Nuclear Fuel Cycle and Waste Technology  
Department of Nuclear Energy  
International Atomic Energy Agency  
Vienna International Centre  
PO Box 100  
1400 VIENNA  
AUSTRIA

Tel.: +43 1 2600 22470

Fax: +43 1 26007

Email: [L.McManniman@iaea.org](mailto:L.McManniman@iaea.org)

### **Administrative Secretary**

#### **Ms Sofija Benítez Navarro**

Division of Nuclear Fuel Cycle and Waste Technology  
Department of Nuclear Energy  
International Atomic Energy Agency  
Vienna International Centre  
PO Box 100  
1400 VIENNA  
AUSTRIA

Tel.: +43 1 2600 22809

Fax: +43 1 26007

Email: [S.Benitez-Navarro@iaea.org](mailto:S.Benitez-Navarro@iaea.org)

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.





# Participation Form

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**IAEA Headquarters, Vienna, Austria**

**11–13 June 2018**

To be completed by the participant and sent to the competent official 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), Vienna International Centre, PO Box 100, 1400 Vienna, Austria, either electronically by email to: [Official.Mail@iaea.org](mailto: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 Secretary ([L.McManniman@iaea.org](mailto:L.McManniman@iaea.org)) and to the Administrative Secretary ([S.Benitez-Navarro@iaea.org](mailto:S.Benitez-Navarro@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: 16 May 2018**

Family name: (e.g. Smith)		First name(s): (e.g. John)		Mr/Ms
Institution:				
Full address:				
For urgent communications please indicate:		Tel.:		
		Fax:		
		Email:		
Nationality:		Designating Government or organization:		
Mailing address (if different from address indicated above):				
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:				







# Form for Submission of a Paper

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Title of the paper:		
Abstract id (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	Mailing address:	
Mr/Ms:		
For urgent communications please indicate	Tel.:	
Email:	Fax:	

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**Please note:** If granting the licence mentioned above, please supply any copyright acknowledgement text required.

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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: (e.g. Smith)	First name(s): (e.g. John)	Mr/Ms:
Mailing address:	Tel.:	
	Fax:	
	Email:	
Date of birth (yy/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 meeting:

Date: \_\_\_\_\_ Signature of applicant: \_\_\_\_\_

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