A. Introduction

Following the Fukushima Daiichi nuclear accident, Member States of the International Atomic Energy Agency (IAEA) have been carrying out safety reassessments (‘stress tests’) of their nuclear installations to evaluate their ability to withstand the effects of extreme external events that had previously not been considered in the design basis. The primary focus of these reassessments has been on nuclear power plants. Many Member States have extended the scope of safety reassessments to include nuclear fuel cycle facilities, even though these types of facility often present a much lower potential hazard.

The IAEA publication *Safety Reassessment for Nuclear Fuel Cycle Facilities in Light of the Accident at the Fukushima Daiichi Nuclear Power Plant* (Safety Reports Series No. 90) was published in 2016.
It provides guidance to Member States, on the basis of international good practice, for performing safety reassessments of nuclear fuel cycle facilities following the lessons from the Fukushima Daiichi accident. The IAEA has also organized during the past few years Technical Meetings and workshops on the same topic. The latest workshop was organized in 2016, in Vienna. That workshop addressed, inter alia, the technical contents of Safety Reports Series No. 90 and provided the participating Member States with practical information on application of the guidance provided in this publication. The participants in the IAEA activities mentioned above recommended that the IAEA Secretariat continue its efforts to disseminate the lessons from the accident that are relevant to the safety of nuclear fuel cycle facilities, and to support Member States to address these through the implementation of Technical Meetings, workshops, peer reviews and advisory missions.

The IAEA Director General’s report on the Fukushima Daiichi Accident and the associated technical volumes, published in August 2016\(^1\), provide a description of the accident and its causes, evolution and consequences, and highlight the main observations and lessons. Many of the observations and lessons are relevant for safety reassessment of nuclear fuel cycle facilities to evaluate their ability to withstand the effects of extreme external events. Significant progress has been also achieved in the revision of *Safety of Nuclear Fuel Cycle Facilities* (IAEA Safety Standards Series No. NS-R-5 (Rev. 1)) to incorporate the relevant feedback from the Fukushima Daiichi accident.

In response to the recommendations to continue efforts to disseminate the relevant lessons from the accident, and within the framework of its programme of work on the safety of nuclear fuel cycle facilities, the IAEA is organizing this Workshop on Safety Reassessment of Nuclear Fuel Cycle Facilities in the Light of the Lessons Learned from the Fukushima Daiichi Accident during the week of 6 to 10 November 2017.

### B. Objectives

The purpose of the workshop is to discuss and exchange information on the experience acquired from the Fukushima Daiichi accident that is relevant to the safety of nuclear fuel cycle facilities. In particular, the safety reassessments that have been performed since the accident, the results of these reassessments, and the actions taken (or planned) by Member States based on the results of the reassessments will be presented and discussed. Feedback from the use by the IAEA and Member States of the Safety Report entitled *Safety Reassessment for Nuclear Fuel Cycle Facilities in Light of the Accident at the Fukushima Daiichi Nuclear Power Plant* (Safety Reports Series No. 90, IAEA, Vienna, 2016) will also be discussed.

### C. Target Audience

This workshop is intended for individuals from operating organizations, technical support organizations and regulatory bodies who are responsible for the oversight of safety at nuclear fuel

cycle facilities. Participants should be familiar with the actions taken by Member States related to safety and accident analysis or planning for nuclear fuel cycle facilities in the light of the Fukushima Daiichi accident. Member States are strongly encouraged to identify suitable women participants.

D. Working Language

The working language of the workshop will be English.

E. Topics

This workshop will be relevant to the following types of nuclear fuel cycle facilities: uranium and thorium processing facilities; facilities for refining, converting, enriching and fabricating uranium and mixed oxide fuel; spent fuel storage, reprocessing and associated waste conditioning/storage facilities; isotope production facilities; and research and development facilities.

A draft version of the proposed new IAEA Safety Requirements publication on the safety of nuclear fuel cycle facilities (currently in the approval process), which addresses the feedback form the Fukushima Daiichi accident, will be presented by IAEA.

Participants are kindly requested to provide presentations on the results of the safety reassessments (completed, in progress or planned) of nuclear fuel cycle facilities in their respective countries based on the experience from the Fukushima Daiichi accident and on the status of actions required (implemented or planned) as a result of these reassessments as well as feedback from the use by their respective countries of Safety Reports Series No. 90.

The presentations should address the following topics:

a. The new IAEA safety requirements on the safety of nuclear fuel cycle facilities (SSR-4, recently approved by the Commission on Safety Standards), addressing the feedback from the Fukushima Daiichi accident;

b. Regulatory aspects of safety reassessment;

c. Use of a graded approach in application of the safety requirements related to safety reassessment;

d. Implementation of the findings from safety reassessments and the resulting safety improvements; and

e. Member States’ feedback and experience from the use of Safety Reports Series No. 90.

Working groups will be formed among the participants to discuss and compare the results of their safety reassessments and report on ways to enhance the safety of nuclear fuel cycle facilities in view of the feedback from the Fukushima Daiichi accident, including identification of challenges and issues of common concern as well as the actions to be taken by Member States to address these issues.
F. Visas

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

G. Application Procedure

Nominations should be submitted using the attached Participation Form (Form A) and should include the provisional title of any paper or lecture that the nominee intends to contribute. Completed forms should be endorsed by the competent national authority and returned through the established official channels. They must be received by the IAEA not later than 28 August 2017. Nominations received after that date or applications sent directly by individuals or by private institutions cannot be considered. Nominating Governments will be informed in due course of the names of the selected candidates and at that time full details will be given on the procedures to be followed with regard to administrative and financial matters.

H. Organization

Scientific Secretary:

Mr Ramon Gater
Research Reactor Safety Section
Division of Nuclear Installation Safety
Department of Nuclear Safety and Security
International Atomic Energy Agency
Vienna International Centre
PO Box 100
1400 VIENNA
AUSTRIA

Tel.: +43 1 2600 22013 or 26076
Fax: +43 1 26007
Email: R.V.Gater@iaea.org
Administrative Secretary:

Ms Lilla Hedervari  
Research Reactor Safety Section  
Division of Nuclear Installation Safety  
Department of Nuclear Safety and Security  
International Atomic Energy Agency  
Vienna International Centre  
PO Box 100  
1400 VIENNA  
AUSTRIA

Tel.: +43 1 2600 26076  
Fax: +43 1 26007  
Email: L.Hedervari@iaea.org

Subsequent correspondence on scientific matters should be sent to the Scientific Secretary and correspondence on other matters related to the workshop to the Administrative Secretary.
## Participation Form

**Workshop on Safety Reassessment of Nuclear Fuel Cycle Facilities in the Light of the Lessons Learned from the Fukushima Daiichi Accident**

**IAEA Headquarters, Vienna, Austria**

6–10 November 2017

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 or by fax to: +43 1 26007 (no hard copies needed). (Kindly send also a copy per email to: R.V.Gater@iaea.org and L.Hedervari@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 August 2017**

<table>
<thead>
<tr>
<th>Family name: (e.g. Smith)</th>
<th>First name(s): (e.g. John)</th>
<th>Mr/Ms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Institution:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full address:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

For urgent communications please indicate:

<table>
<thead>
<tr>
<th>Tel.:</th>
<th>Fax:</th>
<th>Email:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Nationality:</th>
<th>Nominating Government or organization:</th>
</tr>
</thead>
</table>

Mailing address (if different from address indicated above):

<table>
<thead>
<tr>
<th>Do you intend to give a presentation?</th>
<th>Yes ☐ No ☐</th>
</tr>
</thead>
</table>

Title: