

# Training Workshop on the Development of Severe Accident Management Guidelines Using the IAEA's Severe Accident Management Guideline Development Toolkit

IAEA Headquarters Vienna, Austria

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# **Information Sheet**

# A. Introduction

The number of water cooled power reactors is still the largest among currently operating nuclear power plants (NPPs). Pressurized water reactors (PWRs) and boiling water reactors (BWRs) make up the cornerstone of this type of reactor and together they account for a share of more than 80% of all 448 NPPs operating in 2017. The design of such NPPs should be such as to enable them to withstand various postulated incidents and accidents, and they need to be equipped with several safety systems to protect against and control such incidents and accidents, together with a set of emergency operating procedures which help the operators prevent incidents at NPPs from developing into significant core damage accidents. Moreover, the industrial organizations that produce these main lines of reactor — specifically PWRs and BWRs — have already developed various guidance documents and regulatory requirements, including severe accident management guidelines (SAMGs) which are used as a supplement to provide operators with systematic guidance on the mitigatory actions to be taken during such accidents. The main objective of SAMGs is to provide guidelines to operating staff and emergency response personnel, including technical support centre staff, on how to cope with severe accidents at NPPs and utilize any

available equipment at the plant to terminate core damage, maintain containment integrity, and minimize off-site radionuclide releases.

Typically, workers at NPPs receive periodic training and retraining on the implementation of SAMGs. Continuing its work under the three pillars of its mandate — technology, safety and verification — and aiming at enhancing the safety of operating NPPs in Member States, the International Atomic Energy Agency (IAEA) has developed the Severe Accident Management Guideline Development (SAMG-D) toolkit as training resource, in response to the IAEA Action Plan on Nuclear Safety. This toolkit provides a description of the basic elements required for the development of SAMGs for NPPs to help operators develop and select a proper set of SAMGs for their specific plant. The toolkit is designed for capacity building in newcomer Member States and as a refresher tool for Member States with an established SAMGs programme. This SAMG-D toolkit was developed on the basis of the IAEA Safety Guide entitled *Severe Accident Management Programmes for Nuclear Power Plants* (IAEA Safety Standards Series No. NS-G-2.15, Vienna, 2009), which provides guidance on the establishment of an accident management programme from the conceptual stage down to a complete set of procedures and guidelines for the plant operators. In addition, various up-to-date practices identified as lessons learned from the Fukushima Daiichi accident and the work done on the revision of NS-G-2.15 were also used to inform the development of the SAMG-D toolkit.

It was clearly recognized by participants in the previous two IAEA activities on the development of SAMGs that an additional training event on the development of SAMGs for spent fuel pools and multi-unit plants, and discussion of case studies relating to how high level actions are to be implemented on-site, are of importance to Member States. This workshop seeks to provide an overview of these new topics as well as to exchange information on the latest trends in the area of development of SAMGs, and to introduce the IAEA's SAMG-D toolkit as a training resource for this topic.

# **B.** Objectives

The purpose of the workshop is to: (a) introduce participants to the development of SAMGs for spent fuel pools and multi-unit NPPs; (b) present case studies on how high level actions are to be implemented on-site, and discuss other insights on SAMGs in Member States relating to different types of power reactor; (c) discuss Member States' current practices in the development of SAMGs; (d) provide training on the latest version of the IAEA's SAMG-D toolkit; and (e) raise awareness and enhance understanding of the importance of establishing reliable SAMGs programmes in Member States.

# C. Working Language

English

# **D.** Application Procedure

Designations should be submitted through InTouch+ (<u>https://Intouchplus.iaea.org</u>) or using the attached **Participation Form (Form A)**. Completed requests should be endorsed by the competent national

authority (e.g. Ministry of Foreign Affairs, Permanent Mission to the IAEA, or National Atomic Energy Authority), or by an organization invited to participate, and returned through the established official channels. They must be received by the IAEA not later than **6 October 2017**. Designations received after that date or applications sent directly by individuals or by private institutions cannot be considered. Designating Governments and invited organizations 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.

#### **E.** 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 workshop. The IAEA has, however, limited funds at its disposal to help meet the cost of attendance of certain participants. Such assistance may be offered upon specific request to normally 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 workshop. 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 **6 October 2017** through InTouch+ (https://Intouchplus.iaea.org) or 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**.

#### F. Venue

The workshop will be held at the IAEA's Headquarters in Vienna, Austria and will start on **Monday**, **11 December 2017**. Participants are advised to arrive one hour prior to the convening time of the workshop 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

#### G. 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.

# H. 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 workshop to the Administrative Secretary.