



# **Regional Workshop on Radiation Processing Dosimetry with Focus on Uncertainties Measurement and Digital Oscillometric Evaluation of ECB Dosimeters**

**Hosted by**

The Government of Hungary

**through the**

HUN-REN Centre for Energy Research

Budapest, Hungary

**14 -18 October 2024**

**Ref. No.: ME-RER1024-EVT2403862**

## **Information Sheet**

### **Purpose**

The purpose of the workshop is to discuss and exchange experience on radiation processing dosimetry and recent approaches to measurement uncertainty in dose conformity assessment.

### **Working Language(s)**

The working language(s) of the event will be **English**.

## **Deadline for Nominations**

Nominations received after **9 August 2024** will not be considered.

## **Project Background**

It is becoming increasingly evident that the environmental challenges facing humanity extend beyond local and regional scales, reaching a continental scope. Consequently, there is a growing demand for economically and technically viable pollution control technologies to address issues arising from gaseous emissions and liquid effluents. Radiation technologists, among other professionals, are actively engaged in the search for such solutions. In recent decades, extensive efforts have been dedicated to harnessing radiation technology for environmental remediation. These endeavours encompass a wide range of applications, including the simultaneous removal of SO<sub>x</sub> and NO<sub>x</sub> from flue gases, groundwater purification, wastewater treatment, and the hygienization of sewage sludge for agricultural use. Radiation processing has established its significance in diverse domains, spanning polymer modification, medical sterilization, and environmental protection. The IAEA plays a pivotal role in advancing the utilization of radiation processing. The agency facilitates the transfer of radiation processing technologies, encourages the sharing of knowledge and expertise, and fosters the development of a professional network dedicated to environmental protection and the sustainable utilization of resources as well as the quality assurance (QA) of radiation facilities. These endeavours are underpinned by the harmonized and safe implementation of radiation technologies through the RER1024 project 'Enhancing the Use of Radiation Technologies for Improved Resource Efficiency'.

## **Scope and Nature**

The workshop will consist of presentations and group exercises covering topics related to both new and classical approaches for uncertainty assessment in dose measurement in connection with radiation processing, and in particular with respect to radiation sterilization of medical devices and pharmaceuticals.

The measurement uncertainties calculated by the participant laboratories during the dosimetry calibration verification exercise performed under the framework of the previous RER1021 project 'Enhancing the Use of Radiation Technologies in Industry and Environment' is planned to be analysed in line with the evaluation of the measured data. In addition, the improvement of the oscillometric measurement technique of the irradiated ECB dosimeters used during the exercise will be discussed.

Participants are kindly requested to prepare a very short (max. 10 minutes) summary - to be given during the participant introductory session at the beginning of the workshop - describing how measurement uncertainty is used presently in connection with their own radiation processing activities.

## **Participation**

The workshop is open to participants from Member States participating in the regional TC project RER1024. For this event, the target countries are those where radiation processing technologies are established or soon to be introduced.

## Participants' Qualifications and Experience

The participants should be technical specialists (e.g., physicists/chemists/engineers) with hands-on experience in radiation process control. First priority shall be given to those candidates who are working directly in the field of radiation processing technologies and participated in the calibration verification and dosimetry intercomparison exercises organized during the previous RER1021 regional project.

## Application Procedure

Candidates wishing to apply for this event should follow the steps below:

1. Access the InTouch+ home page (<https://intouchplus.iaea.org>) using the candidate's existing Nucleus username and password. If the candidate is not a registered Nucleus user, she/he must create a Nucleus account (<https://websso.iaea.org/IM/UserRegistrationPage.aspx>) before proceeding with the event application process below.
2. On the InTouch + platform, the candidate must:
  - a. Finalize or update her/his personal details, provide sufficient information to establish the required qualifications regarding education, language skills and work experience ('Profile' tab) and upload relevant supporting documents;
  - b. Download and complete the [Designation of Beneficiary and Emergency Contact Form](#), and upload to InTouch+ ('Profile' tab under the personal section) specifying the document name. If already provided, kindly discard this step; and
  - c. Search for the relevant technical cooperation event (**EVT2403862**) under the 'My Eligible Events' tab, answer the mandatory questions and lastly submit the application to the required authority.

**NOTE:** Completed applications need to be approved by the relevant national authority, i.e. the National Liaison Office, and submitted to the IAEA through the established official channels by the provided designation deadline.

For additional support on how to apply for an event, please refer to the [InTouch+ Help page](#). Any issues or queries related to InTouch+ can be addressed to [InTouchPlus.Contact-Point@iaea.org](mailto:InTouchPlus.Contact-Point@iaea.org).

Should online application submission not be possible, candidates may download the nomination form for the training course from the [IAEA website](#).

**NOTE:** A medical certificate signed by a registered medical practitioner dated not more than four months prior to starting date of the event must be submitted by candidates when applying for a) events with a duration exceeding one month, and/or b) all candidates over the age of 65 regardless of the event duration.

## **Administrative and Financial Arrangements**

Nominating authorities will be informed in due course of the names of the candidates who have been selected, and will at that time be informed of the procedure to be followed with regard to administrative and financial matters.

Selected participants will receive an allowance from the IAEA sufficient to cover their costs of lodging, daily subsistence and miscellaneous expenses. They will also receive either a round-trip air ticket based on the most direct and economical route between the airport nearest their residence and the airport nearest the duty station through the IAEA's travel agency AX Travel Management, or a travel allowance, or they will be reimbursed travel by car/bus/train in accordance with IAEA rules for non-staff travel.

## **Disclaimer of Liability**

The organizers of the event do not accept liability for the payment of any cost or compensation that may arise from damage to or loss of personal property, or from illness, injury, disability or death of a participant while she/he is travelling to and from or attending the course, and it is clearly understood that each Government, in approving her/his participation, undertakes responsibility for such coverage. Governments would be well advised to take out insurance against these risks.

## **Note for female participants**

Any woman engaged by the IAEA for work or training should notify the IAEA on becoming aware that she is pregnant.

The Board of Governors of the IAEA approved new International Basic Safety Standards for Protection against Ionizing Radiation and for the Safety of Radiation Sources. The Standards deal specifically with the occupational exposure conditions of female workers by requiring, inter alia, that a female worker should, on becoming aware that she is pregnant, notify her employer in order that her working conditions may be modified, if necessary. This notification shall not be considered a reason to exclude her from work; however, her working conditions, with respect to occupational exposure shall be adapted with a view to ensuring that her embryo or foetus be afforded the same broad level of protection as required for members of the public.

# IAEA Contacts

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