



Regional Workshop on Advanced Wastewater Treatment Solutions using Radiation Technologies

Hosted by the

The Government of Türkiye

through the

Turkish Energy, Nuclear and Mineral Research Agency (TENMAK),
Nuclear Energy Research Institute (NÜKEN)

Ankara, Türkiye

06 to 10 July 2026

Ref. No.: ME-RER1024-EVT2601756

Information Sheet

Purpose

The purpose of the event is to discuss and share experience in the application of radiation technologies for wastewater treatment, including pilot-scale demonstrations and dosimetry control, as well as addressing economic feasibility.

Working Language(s)

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

Deadline for Nominations

Nominations received after **24 April 2026** will not be considered.

Project Background

This workshop brings together experts and stakeholders from participating Member States to strengthen the use of radiation technologies in addressing challenges related to wastewater treatment and environmental protection. With increasing pressure on water resources and the need for effective pollution control, innovative and sustainable technological solutions are becoming increasingly important.

The workshop will provide a platform to share practical knowledge and experiences in the application of radiation technologies, including aspects such as pilot-scale implementation and process control. It will also facilitate discussions on technical, operational, and economic considerations, while encouraging regional cooperation and the exchange of expertise. Through these interactions, the event aims to support Member States in advancing their capabilities and developing effective approaches for the application of such technologies within their national contexts.

Expected Outputs

The expected outputs of the meeting are:

- Enhanced understanding among participants of the application of radiation technologies, including electron beam systems, for wastewater treatment and environmental remediation.
- Improved knowledge on technical aspects such as pilot-scale implementation, process optimization, and dosimetry control.
- Identification of suitable technologies and approaches that can be adopted or adapted by participating Member States.
- Strengthened regional collaboration and exchange of knowledge and experience among participating institutions.

Scope and Nature

The workshop will address the application of radiation technologies for advanced wastewater treatment and environmental remediation, with a particular focus on electron beam (EB) processing and its integration with conventional treatment systems. The programme will cover the fundamental principles of radiation chemistry, dosimetry systems, and process control, as well as system design considerations and operational parameters for effective implementation.

Technical sessions will highlight the treatment of various complex waste streams, including municipal, hospital, industrial, and high-strength wastewaters such as coke industry effluents, landfill leachate, and contaminated

sediments. Specific topics will include the removal of micropollutants, degradation of persistent organic pollutants (e.g., PCBs), sludge and sediment treatment, and innovative applications such as mucilage valorisation into plant growth promoters. The integration of radiation technologies with biological treatment processes, including aerobic, anaerobic and membrane systems, will also be explored.

The workshop will further address pilot- and full-scale implementation aspects, including economic feasibility, process optimization, and technology scalability. A technical visit to an operational electron beam processing facility will provide practical insights into system configuration and real-world applications.

The event will be delivered through expert lectures, technical presentations, case studies, and interactive discussions. Participants will have the opportunity to exchange national experiences, identify common challenges, and discuss strategies for the adoption and scaling of radiation technologies within their respective countries. The workshop aims to strengthen regional collaboration and support the effective deployment of sustainable radiation-based solutions for environmental protection.

Participants' Qualifications and Experience

The participants should be professionals, researchers, engineers, or graduated students with backgrounds in environmental science and engineering, chemical engineering or industrial processing oriented for wastewater treatment. Participation of young professionals are highly recommended. Preference is given to applicants working directly in wastewater treatment by radiation technologies.

For this event, the target member states are those involved in RER1024 where radiation processing technologies are established or soon to be introduced.

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 (**EVT2601756**) 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.

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 he/she is travelling to and from or attending the course, and it is clearly understood that each Government, in approving his/her 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.

Training on Basic Security in the Field (BSITF)

In order to comply with UN system-wide security measures, it is recommended that all meeting participants complete the online security awareness training BSAFE (which replaces BSITF and ASITF), prior to traveling to locations where UN security phases are in effect. The aim of this course is to educate participants on how best to avoid or minimize potential dangers and threats, and to demonstrate what individuals can do if they find themselves in insecure situations. The course is available online (<https://training.dss.un.org/course/category/6>).

Once an individual has completed the training, he/she must go back to the main training page to receive the certificate. If the button to get the certificate is not immediately visible, please refresh the page. BSAFE is maintained by UNDSS; in case of problems with the system, please contact UNDSS through the "Contact Us" page on the training website (<https://dss.un.org/dssweb/contactus.aspx>).

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