



# **Regional Workshop on Radioanalytical Analysis of NORM samples and Intercomparison Exercise**

**Hosted by**

The Government of Greece

**through the**

Greek Atomic Energy Commission (EEAE)

Athens, Greece

**18 to 22 July 2022**

**Ref. No.: ME-RER9155-2201679**

## **Information Sheet**

### **Purpose**

The purpose of the regional workshop is to provide participants with knowledge and skills needed to perform the prior radiological evaluation of industrial processes involving Naturally Occurring Radioactive Materials (NORM) through radioanalytical techniques in line with the International Basic Safety Standards (GSR Part 3) requirements and General Safety Guide on Occupational Radiation Protection (GSG-7) recommendations. Furthermore, it aims to identify the corresponding existing capabilities and infrastructure in Europe and Central Asia. Within this framework, an intercomparison exercise will be organized to assess the capabilities of the relevant services in the region.

## **Working Language(s)**

The working language of the workshop will be **English**.

## **Deadline for Nominations**

Nominations received after **31 March 2022** will not be considered.

## **Project Background**

Naturally occurring radiative material (NORM) is radioactive material containing no significant amounts of radionuclides other than naturally occurring radionuclides. The most important factor for the purposes of radiation protection are the radionuclides in the Uranium-238 (U-238) and Thorium-232 (Th-232) decay series. For most human activities involving minerals and raw materials, the levels of exposure to these radionuclides are not significantly greater than normal background levels and are not of concern for radiation protection. However, certain work activities can give rise to significantly enhanced exposures that may need to be controlled by robust regulation. The International Basic Safety Standards (GSR Part 3) sets the radiation protection requirements for regulatory bodies, technical service providers, industry operators and workers. These requirements are applicable to different industrial activities involving NORM under planned and existing exposure situations emphasizing that consideration needs to be given to the radiation protection of the workers, the public and the environment for which guidance is provided in GSG-7. The main focus area of the regional project is the coherent application of GSR Part 3 to natural radiation sources, in particular to workplaces and to industrial processes involving NORM.

## **Expected Outputs**

Improved understanding on the methodology for radioanalytical analysis and techniques as initial step for prior radiological evaluation and identification of potential participants to the intercomparison exercise.

Identifying the regional needs in terms of capabilities and infrastructure in NORM radiological characterisation.

## Scope and Nature

The regional workshop will be conducted with a series of presentations, laboratory practices and interactive group discussions. Experts will introduce the relevant requirements and recommendations embodied in GSR Part 3 and GSG-7. The workshop will focus on techniques, operating procedures and considerations that apply in the radioanalytical laboratories, thereby enhancing the quality of analytical work concerning the characterization of NORM. The topics to be covered in the workshop will include:

- Gamma spectrometry
- $\alpha/\beta$  measurements
- LSC measurements
- Sampling

The above topics have been selected based on the general needs of the Member States in Europe and Central Asia as these were defined during the Virtual Regional Workshop on Occupational Radiation Protection in Industrial Processes Involving Naturally Occurring Radioactive Material (NORM) that was organized in November 2021.

All participants are kindly invited to prepare presentations on the status of national and institutional radioanalytical analysis capacity in their respective countries (by using the presentation template provided by the Secretariat) and submit their Country Reports to the IAEA Technical Officer Mr H.B. Okyar by e-mail ([h.b.okyar@iaea.org](mailto:h.b.okyar@iaea.org)) no later than 9 May 2022 (COB).

The presentations / documents will be used for discussions during the working group activities and planning for the intercomparison exercise; therefore, the documents should preferably be prepared in English.

During the workshop, participants are expected to present their national and institutional capabilities regarding the NORM characterization. Moreover, they are expected to participate in an intercomparison exercise providing their results, in a period of about 3 months, after the workshop.

## Participation

The workshop is open for up to 25 (including local) participants from countries that participate in the project RER/9/155, subject to the availability of funds.

## Participants' Qualifications and Experience

The workshop is intended for individuals who are working in radioanalytical laboratories and who already have demonstrated experience in the field of NORM radiological characterization, and would like to improve their skills further. The participants have to be fluent in English language.

# 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. Search for the relevant technical cooperation event (**EVT2201679**) 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 workshop 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 course must be submitted by candidates when applying for a) course with a duration exceeding one month, and/or b) all candidates

## Administrative and Financial Arrangements

Nominating authorities will be informed in due workshop 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 American Express, or a travel grant, 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 course 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 workshop, 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.

## **IAEA Contacts**

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