



# **Technical Meeting on the Establishment of a Web-based Information Exchange Platform for Occupational Radiation Protection in Industries involving Naturally Occurring Radioactive Material (ISEMIR-N)**

**Virtual Event**

**22 – 26 November 2021**

**Ref. No.: EVT1903979**

## **Information Sheet**

### **Introduction**

Many industrial processes involving naturally occurring radioactive material (NORM) follow a common cycle with several stages, from the extraction of materials to the fabrication and the use of products and by-products, including the generation of discharges, residues and waste. For the application of the IAEA Safety Requirements on naturally occurring radioactive material (NORM), consideration needs to be given to radiation protection of workers, the public and the environment for a wide range of industries involving NORM on a global basis. Very large numbers of workers in the world may be exposed to NORM during industrial processes, and although the data are more limited than those for occupational exposures to man-made sources, the annual collective effective dose has been estimated to be approximately twice as large for some industries (e.g., U/Th mining and processing, minerals production, rare earth extraction, etc.) and it is not always possible to anticipate doses. While radiological aspects of NORM industries can be characterized in a general way, radiation protection management, especially for workers, should be site and practice specific with the application of graded approach and the regulation of NORM industrial processes often involve multiple regulatory authorities.

For nuclear industry workers there are many databases of occupational doses at both, national and international level (such as Information System on Occupational Exposure, ISOE) and similar systems have been developed for medical and industrial workers (Information System on Occupational Exposure in Medicine, Industry and Research, ISEMIR) and the Information System for Uranium Mining Exposures (UMEX) for uranium mining and processing industry to examine global occupational exposures.

Based on the same type of methodology, taking NORM exposure scenarios into consideration, and the resulting exposures to workers which differ widely from field to field, it has been planned to develop an overview tool (web-based platform) to better collect and share ORP operational management experience among various industries involving NORM through the extension of the ISEMIR platform by adding a module (ISEMIR-N).

The platform has been designed to be incorporated into an online web tool for information exchange for regular collection and maintenance of data on occupational exposure and to analyse the trends of collective occupational doses (or individuals) in different NORM industrial operations, with global and regional perspectives, to enhance the worker protection through strengthening and harmonizing the radiation protection programmes for different NORM industrial operations. This is specifically related to the General Conference Resolutions adopted on Nuclear and Radiation Safety (GC(64)RES/9) to strengthen their capabilities for the realistic assessment of radiological impacts of NORM.

## **Objectives**

The event aims to provide an international, cross-cutting forum to discuss the initial version of the ISEMIR-N platform and foster cooperation on data collection through specific questionnaires, applications, methodologies, tools, thus enabling infrastructure that has the potential to advance ISEMIR-N.

### **The topics to be covered during the meeting:**

- Introductory concept of ISEMIR-N
- Industrial processes involving NORM (inventories, classification)
- Planning and consultation
- Methodologies for acquiring and validating relevant occupational exposure data
- Monitoring approaches, dose calculation and radiation controls
- Approach on instrumentational and computational tools
- Realistic radiological impact assessment
- Outlook, perspectives and demands

## **Target Audience**

The event is intended for individuals and organizations from Member States that are involved in the field of occupational radiation protection in industrial processes involving NORM, regulatory bodies, technical service providers, national/state dose registries, industry representatives dealing with radiation protection, professional organisation and NORM associations. The maximum number of participants is limited to 30 and Member States are encouraged to designate representatives from their national dose registry as participants for this meeting. Member States are strongly encouraged to identify suitable women participants.

## **Working Language**

The working language of the event will be English. All communication and papers must be sent to the IAEA in English. No simultaneous interpretation will be provided.

## Participation and Registration

All persons wishing to participate in the event must be designated by an IAEA Member State or should be members of organizations that have been invited to attend.

In order to be designated by an IAEA Member State, participants are requested to send the **Participation Form (Form A)** to their competent national authority (e.g. Ministry of Foreign Affairs, Permanent Mission to the IAEA or National Atomic Energy Authority) for onward transmission to the IAEA by **22 October 2021**. Participants who are members of an organization invited to attend are requested to send the Participation Form (Form A) through their organization to the IAEA by the above deadline. Selected participants will be informed in due course on the procedures to be followed with regard to administrative matters.

Participants who wish to give presentations are requested to submit an abstract of their relevant work. The abstract will be reviewed as part of the selection process for presentations. The abstract should be in A4 page format, should extend to no more than one pages (including figures and tables). It should be sent electronically to Mr H. Burçin Okyar, the Scientific Secretary of the event (see contact details below). Authors will be notified of the acceptance of their proposed presentations by **5 November 2021**.

## IAEA Contacts

### Scientific Secretary:

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Subsequent correspondence on scientific matters should be sent to the Scientific Secretary and correspondence on other matters related to the event to the Administrative Secretary.