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国际原子能机构

International Atomic Energy Agency

Agence internationale de l'énergie atomique

Международное агентство по атомной энергии

Organismo Internacional de Energía Atómica

National Liaison Officer

Vienna International Centre, PO Box 100, 1400 Vienna, Austria

Phone: (+43 1) 2600 • Fax: (+43 1) 26007

Email: Official.Mail@iaea.org • Internet: <http://www.iaea.org>

In reply please refer to: C1-INT9175/9021/01

Dial directly to extension: (+431) 2600-26038

2015-07-01

Subject: Invitation to the Interregional Workshop on Good Practices on NORM Residues and Waste Management, Kuala Lumpur, Malaysia 19-23 October 2015

Dear National Liaison Officer,

I am pleased to invite you to send nominations of suitable candidates to participate in the above-mentioned workshop under the framework of TC Project INT/9175– Promoting safe and efficient clean-up of radioactively contaminated facilities and sites. The purpose of the workshop and related information are outlined in the attached Prospectus.

For candidates who are selected by the IAEA, the IAEA will cover the cost of return international travel from the home country to Kuala Lumpur, Malaysia and provide Daily Subsistence Allowance (DSA) for the duration of the workshop in line with IAEA rules and procedures.

Please submit nominations to the IAEA online through the Technical Cooperation Department's InTouch system (<http://intouch.iaea.org>). Only if this is not possible, nominations may be submitted on the Nomination Form for Meeting/Workshop available on the IAEA website: <http://www.iaea.org/technicalcooperation/How-to-take-part/In-meetings-WS/index.html>. Completed forms should be endorsed by relevant national authorities and sent to the Programme Management Officer for this project, Mr Pavel Yurkin (IAEA Official Fax: +43-1-26007 or E-Mail Official.Mail@iaea.org), through the official channels, i.e. the designated National Liaison Office for IAEA matters, not later than 20 August 2015.

Yours sincerely,

Martin Krause
Director
Division for Europe
Department of Technical Cooperation

Enclosure: Prospectus

International Atomic Energy Agency

Interregional Workshop on Good Practices on NORM Residues and Waste Management

PROSPECTUS

- Project Number & Title:** INT 9175 "Promoting safe and efficient clean-up of radioactively contaminated facilities and sites"
- Place:** Kuala Lumpur, Malaysia
- Date:** 19-23 October 2015
- Deadline for nominations:** 20 August 2015
- Organizers:** The International Atomic Energy Agency in cooperation with the Government of Malaysia through the Ministry of Science, Technology and Innovation (MOSTI)
- Host Country Organizer:** Mr Mohd Mokhtar Bin Tahar
Ministry of Science, Technology and Innovation (MOSTI) Malaysia
Aras 4, Block C5, Parcel C, Pusat Pentadbiran Kerajaan Persekutuan, Putrajaya, 62662, MALAYSIA
Phone: 0060 3 8000 8011
Email: mokhtar@mosti.gov.my
- Language:** The language of the workshop will be English.
- Purpose:** Providing an overview of the best practices in the management of residues and waste associated with Naturally Occurring Radioactive Materials (NORM), including analytical procedures, inventory taking, equipment decontamination techniques, remediation of contaminated sites as well as related policies and regulatory frameworks.
- Expected Output(s):** On completion of the workshop the attendees will have obtained:
- a) Deeper and wider understanding of the industrial processes that lead to the generation of NORM residues and wastes,
 - b) Increased knowledge on remediation strategies in NORM industries and at NORM contaminated sites.
 - c) Improved capacity to develop inventory assessment plus the relevant policies and regulatory frameworks.
- Scope and Nature:** The workshop will consist of lectures that are relevant to operators of NORM industries and regulators. The topics to be covered during the workshop include: the review of technological/industrial processes that lead to the enhancement of radionuclide concentrations in waste and residues; discussion on the potential environmental impacts associated with the operation of NORM industries; NORM waste management (storage and disposal options); analytical and decontamination techniques; potential uses of residues; and remediation strategies in NORM contaminated sites. Regulatory aspects will also be discussed. The workshop programme will contemplate practical aspects by means of the application of group exercises simulating real-life situations. Active interaction between the participants and the international experts will also be pursued. Therefore, the overall objective of this workshop is to review and to provide guidance to Member States on good

practices in the management of NORM residues, bearing in mind that there is no single approach that applies to all situations.

Background Information:

All minerals and raw materials contain radionuclides of natural origin, of which the most important for the purposes of radiation protection are the radionuclides in the ^{238}U and ^{232}Th decay series and K40. For most human activities involving minerals and raw materials, the levels of exposure to these radionuclides are not significantly greater than normal background levels. Such exposures are generally not of concern for radiation protection. However, certain operations can give rise to significantly enhanced exposures that may need to be controlled by regulation. Material giving rise to these enhanced exposures has become known as naturally occurring radioactive material (NORM). In several processes the activity concentration enhancement will be observed in the generated wastes and/or residues.

Generally speaking recycling of a NORM residue, or its use in other applications rather than disposing of it as waste, is the first consideration. There are many opportunities for recycling NORM residues back to the processes that generated them. Similarly, there are many opportunities for the safe use of NORM residues as by-products. The development of a strategy for NORM waste management should be guided by the need for keeping the radiation risks as low as reasonably achievable. The process is completed by the implementation of the optimum NORM waste management option. For each NORM waste stream, a NORM waste management plan, based on the selected management option should be developed. Equally, remediation of legacy sites can be a significant source of NORM waste.

Participation:

The workshop is open to 30 participants from the IAEA Member States participating in the technical cooperation project INT/9/175, in particular: Algeria, Argentina, Armenia, Bangladesh, Belarus, Brazil, Bulgaria, Chile, China, Croatia, Czech Republic, Egypt, Estonia, Georgia, Greece, Hungary, Indonesia, Iraq, Jamaica, Jordan, Kazakhstan, Kyrgyzstan, Kuwait, Latvia, Libya, Lithuania, Malawi, Malaysia, Mexico, Mongolia, Morocco, Mozambique, Namibia, Niger, Pakistan, Peru, Philippines, Poland, Republic of Moldova, Romania, Russian Federation, Saudi Arabia, Serbia, Slovakia, Slovenia, South Africa, Tajikistan, The former Yugoslav Republic of Macedonia, Uganda, Ukraine, United Arab Emirates, United Republic of Tanzania, Uzbekistan, Viet Nam, Zambia.

Participants will be selected based upon their qualifications and using a competitive selection basis.

The participants should be regulators, managers, operators and other staff working on, or eventually to be designated as responsible for the operation or regulation of NORM industries (e.g., state or national resource management agencies, operators of NORM facilities or affected sites needing or undergoing large scale clean-up actions, regulatory bodies and national research organizations).

Participants' qualifications:

The workshop is aimed at managers and senior professionals involved in the activities generating or managing NORM or responsible for planning, implementing, regulating or supporting projects to handle NORM or remediate NORM contaminated areas. It is essential that nominees should have adequate background (by education and/or experience) in the appropriate subjects including nuclear science and engineering, earth sciences (geology, hydrogeology, etc.), nuclear safety, radiation protection, etc.

The workshop participants are expected to become actively involved in the industries managing NORM or NORM contaminated sites in their Countries.

Nomination Procedure:

Please submit nominations to the IAEA online through the Technical Cooperation Department's InTouch system (<http://intouch.iaea.org>). Only if this is not possible, nominations may be submitted on the Nomination Form for Meeting/Workshop

available on the IAEA website: <http://www.iaea.org/technicalcooperation/How-to-take-part/In-meetings-WS/index.html>. Completed forms should be endorsed by relevant national authorities and sent to the Programme Management Officer for this project, Mr Pavel Yurkin (IAEA Official Fax: +43-1-26007 or E-Mail Official.Mail@iaea.org), through the official channels, i.e. the designated National Liaison Office for IAEA matters, not later than **20 August 2015**

**Administrative
and Financial
Arrangements:**

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

Selected participants from countries eligible to receive technical assistance will be provided with a round trip economy class air ticket from their home countries to Malaysia, and a Daily Subsistence Allowance (DSA) at the prevailing UN Rate. Shipment of accumulated workshop materials to the participants' home countries is not the responsibility of the IAEA.

The organizers of the work shop 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 nominating participants, undertakes responsibility for such coverage. Governments would be well advised to take out insurance against these risks