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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
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National Liaison Officers /
National Coordinators

In reply please refer to: ME-INT9183-1904759
Dial directly to extension: (+43 1) 2600-26540

2019-07-18

Subject: Interregional Workshop on Groundwater Remediation at Uranium Mining and Processing Sites, Dolni Rosinka and Prague, Czech Republic, from 21 to 24 October 2019

Dear National Liaison Officer / National Coordinator,

I am pleased to inform you that the International Atomic Energy Agency (IAEA) is organizing the above event under the IAEA technical cooperation project INT9183, "Overcoming the Barriers to Implementation of Decommissioning and Environmental Remediation Projects".

The purpose of the event is to review and discuss the relevant aspects related to the prevention, detection and remediation of contamination of groundwater in uranium mining and processing operations (including In Situ Leaching (ISL)/In Situ Recovery (ISR)), and whenever necessary propose relevant remediation actions.

The attached Information Sheet provides further details, including technical and administrative aspects of the event. Selection of participants will be in accordance with IAEA procedures.

The IAEA will provide non-local participants with a round-trip air ticket based on the most direct and economical route between the airport nearest the participant's residence and Dolni Rosinka and Prague. Travel details will be agreed with the participants upon receipt of their official nomination. Participants will also receive an allowance from the IAEA sufficient to cover their costs of lodging, daily subsistence and miscellaneous expenses for the duration of the event in line with IAEA rules and procedures.

We would appreciate receiving your country's nominations by **16 August 2019** through the IAEA's InTouch+ platform (https://Intouchplus.iaea.org). Should this not be possible, applicants may download the Nomination Form for the course from the IAEA's webpage. Completed forms must be endorsed by the relevant government authority and may be sent to the IAEA, preferably by email to Official Mail - IAEA Mail address Official.Mail@iaea.org, with copy to Mr Jing Zhang J.Zhang@iaea.org. Please be advised that late nominations or replacements of participants after the closing date for nominations will not be accepted.

We look forward to receiving your early response.

Yours sincerely,

Jing Zhang
Programme Management Officer
Division for Europe
Department of Technical Cooperation

Enclosure: Information Sheet

IAEA
International Atomic Energy Agency
Atoms for Peace and Development

Interregional Workshop on Groundwater Remediation at Uranium Mining and Processing Sites

Hosted by

The Government of the Czech Republic

through the

Diamo S.P.

Prague and Dolni Rosinka, Czech Republic

21 to 24 October 2019

Ref. No.: ME-INT9183-1904759

Information Sheet

Purpose

The purpose of the event is to review and discuss the relevant aspects related to the prevention, detection and remediation of contamination of groundwater in uranium mining and processing operations (including In Situ Leaching (ISL)/In Situ Recovery (ISR)), and whenever necessary propose relevant remediation actions.

Working Language(s)

The working language of the event will be English.

Deadline for Nominations

Nominations received after **16 August 2019** will not be considered.

Project Background

Uranium mining and processing operations – as any other mining activity – have the potential to cause significant adverse environmental impacts. One potential impact that should be addressed during the life cycle of these operations is groundwater contamination. Contamination from uranium mining and milling can result, for example, from the infiltration of mine and mill effluents that contain significant concentrations of radioactive and non-radioactive substances into surrounding groundwater. Long-term sources of contamination to groundwater can also be associated with waste disposal at these operations, such as seepage from mill tailings ponds. Many of these radioactive and non-radioactive elements are naturally present in the groundwater near an ore body. Mining, however, can accelerate natural processes, by oxidation, reduction, ion exchange, microbial activity, and changes in concentration of dissolved gases, which can lead to substantial increases in these contaminant concentrations. Groundwater contamination can be a major concern in uranium in-situ Leaching (ISL)/ in-situ recovery (ISR) operations, as the alkaline or acidic solutions that are injected directly into the ore zone aquifer release not only uranium, but many other elements from the host rocks. Once mobilized these contaminants may move into groundwater surrounding the ISL/ISR targeted ore zone. The remediation of groundwater after contamination by mining and processing operations can be technically and operationally challenging depending on the type and extent of the contamination and the complexity of the geochemical and hydrologic conditions in and near the mining and milling operation. The assessment of the contamination and the selection, design and implementation of the groundwater remediation will require significant resources. The remediation design should be based on the appropriate modelling of the groundwater flow, fate and transport of the contaminants in the subsurface. This workshop will address the issues of groundwater contamination and remediation at uranium mining and milling operations, giving emphasis not only to existing situations but considering forward life-cycle thinking connected with sustainability principles in a way to avoid the need of extensive remediation in the future or, even worse, the generation of new legacy sites.

Participation

The event is open to twenty-five participants. One or two participants per invited member state (up to 2 with justification). Priority will be given to candidates from: Argentina, Brazil, China, Jordan, Malawi, Mongolia, Namibia, Niger, Pakistan, Peru, Russian Federation, Turkey, United Republic of Tanzania and Zambia.

Scope and Nature

The workshop consists of lectures, presentations and field visits of sites in which groundwater remediation activities are being implemented. The participants are expected to be prepared to update and discuss in the workshop their national situations and needs associated with the remediation of groundwater in the scope of uranium production projects. This workshop will focus on the practical aspects to be considered in preventing, mitigating and remediating environmental impacts in groundwater over the full life-cycle of uranium mining and processing operations and will also present management practices to manage impacts in GW (with a view of reducing the need of extensive remediation works), groundwater monitoring, use of geochemical models to predict water quality, design of remedial actions, strategies to deal with groundwater abstraction for industrial use (vis-à-vis water supply to local communities) and stakeholder communication.

Participants' Qualifications and Experience

Candidates should be project managers, decision-makers, regulators that are involved in the planning, designing, implementing or regulating remediation works focused on contaminated groundwater in the scope of uranium mining and processing activities. It is expected that the candidates have basic knowledge in some of the following areas: hydrogeology, geochemical processes that regulate the behaviour of radionuclides and other non-radioactive contaminants in porous media, water treatment processes and mathematical modelling of the fate and transport of pollutants in porous media. As the workshop will be conducted in English, all participants should have sufficient proficiency to follow lectures and express themselves in this language without difficulty.

Application Procedure

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

1. Access the IAEA TALEO page (https://iaea.taleo.net/careersection/ex/jobsearch.ftl) and complete the Candidate Profile.
2. Be registered on the Nucleus page of the IAEA (https://nucleus.iaea.org/).
3. Through Nucleus, access the InTouch+ platform where the Profile is completed (My Profile tab) (https://nucleus.iaea.org/Pages/InTouchPlus.aspx).
   NOTE: The email used for TALEO and Nucleus must be the same. If not, the candidate's profile will not appear complete.

4. On the InTouch + platform, under the 'My InTouch +' tab, the candidate needs to:

   a. select the institute / organization that he/she works at / represents ('My Institute' section);

   b. click on the link called **'Refresh Personal History Form'** to update the system, ***otherwise the nominations submitted will have these fields empty and it will not be possible to evaluate them during the selection of candidates*** ('IAEA Recruitment Platform' section).

   NOTE: Once the above steps are finalized, the candidate's profile will appear as completed and he/she can apply for Technical Cooperation events.

5. In the InTouch+ platform (https://intouchplus.iaea.org), in the 'Applications' tab, search by the event number provided in the invitation.

   The help for each step is located at the top of the page. For additional help on how to register, create a profile and apply for an event, please refer to the online guide and training videos available under the following links: how-to guide and training videos. Any issues or queries related to the new system can be addressed to InTouchPlus.Contact-Point@iaea.org or TC-AIPS-PL4.Contact-point@iaea.org.

Should this not be possible, applicants may download the Nomination Form for the ME from the IAEA website https://www.iaea.org/services/technical-cooperation-programme/how-to-participate.

Applications should contain sufficient information to establish that the nominees have the required qualifications. Please note that the information regarding LANGUAGE SKILLS, EDUCATION AND WORK EXPERIENCE is exported from TALEO. If an applicant's profile in TALEO is not updated, the information in INTOUCH+ for these sections appears as empty and the candidates cannot be evaluated. Completed applications need to be endorsed by the relevant national authority, i.e. the National Liaison Office and submitted through the established official channels.

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 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 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.

IAEA Contacts

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