

Technical Meeting on Best Practices in Environmental Management of Uranium Mining and Processing

IAEA Headquarters, Vienna, Austria

28 – 31 October 2025

Ref. No.: EVT2404564

Information Sheet

Introduction

Uranium is the primary fuel for nuclear reactors to generate electricity, and its production involves several stages, including exploration, mining, processing, and the eventual decommissioning of production sites.

Based on national policies for clean energy and projected growth in demand for electricity in response global greenhouse gas emissions and population growth, there is an expectation of nuclear power growth worldwide. To meet the needs of the nuclear power industry, uranium provides will need to increase production. The uranium production industry has an opportunity and a responsibility to be proactive in contributing practical solutions to the significant environmental challenges facing society, such as climate change, natural resource conservation and reducing waste and pollution.

The uranium mining and processing can have positive environmental, economic and social impacts. However, improperly managed activities can have adverse impacts, and in the worst case, can result in significant negative social and/or environmental effects. The recognition and adoption of best practice principles is considered a fundamental cornerstone to manage the adverse impacts of operations, for sustainable development and for public acceptance of uranium mining and processing.

Best practice principles should be applied to all aspects of uranium production from the exploration and initial development phase through to post-closure stewardship. This includes the development of regulatory frameworks and site/operation specific methodologies that integrate global and local knowledge and enables operators to achieve production goals while minimizing social, environmental and economic impacts.

In 2004, the IAEA assisted in the organization of a Technical Meeting on Best Practices in Environment Management of Uranium Production Facilities, in Saskatoon, Canada, and subsequently released IAEA Nuclear Energy Series, No. NF-T-1.2, Best Practice in Environmental Management of Uranium Mining, in 2010. Best practices, by nature, are not static but continuously evolve in response to new technology, improved understanding and awareness of environmental impacts, expanding regulatory requirements and increased public expectations. Over the last 20 years, environmental legislation has continued to be strengthened and standards of environmental management have become performance indicators in corporate stewardship. In response there has been necessary evolution in the level of environmental practices being developed and implemented by the uranium production industry.

The main focus of the event is environmental management practices and principles being developed and/or implemented in uranium mining and processing operations, that are most effective in improving the environmental performance, minimizing adverse impacts on the environment and society and bringing benefits to local and national communities and economies.

Objectives

The purpose of the event is to provide a forum for Member States to share expert knowledge and best practices on environmental management of uranium mining and processing.

Target Audience

The Technical Meeting is intended to bring together expert environmental practitioners, representing national authorities, governments and organizations involved in safe exploration, operation, and decommissioning and remediation of uranium mining and processing sites.

Working Language(s)

The working language of the meeting will be English with no interpretation provided. All communications, abstracts and presentations must be submitted in this language.

Expected Outputs

A meeting report will be prepared to summarise the main findings of this Technical Meeting. The meeting report and presentations will be shared with meeting participants and will be posted on the <u>IAEA Connect UPC-Net site</u>.

Structure

Three guiding principles of environmental management in responsible uranium mining and processing are: i) the sustainable development principal; ii) optimization; and iii) the precautionary principal. This event will comprise of three technical sessions on the continuing evolution of these guiding principles and their application in practice.

The technical sessions are as follows:

- Session 1: Discussion on lessons learned, current and emerging environmental management practices in the uranium production cycle (exploration, conceptual design, feasibility studies, construction, operation, decommissioning, remediation and closure, and mines in care and maintenance).
- Session 2: Discussion on environmental management regulations and governance of short term impacts and long term liabilities of uranium mining and processing.
- Session 3: Discussions on balancing environmental, social and economic interests of uranium production at the national and local level.

Participants will be asked to identify the technical session(s) to which they want to contribute.

Topics

The presentation topics should align with the technical sessions.

Session 1 will include a broad range of topics on best practice applications, technologies and trends in the anticipation, prevention, mitigation and minimization of environmental effects. The following topics are suggested, but not limited to:

- Environmental characterisation, data collection and monitoring programmes
- Environmental impact assessments
- Environmental protection and mitigation strategies
- Environmental management systems and/or plans
- Control of release of radiation material to the environment
- Water, tailings and waste management
- Mine close-out planning (decommissioning, remediation and closure).

Session 2 will focus on international, state and provincial environmental regulations, their establishment and implementation. The following broad topics are suggested, but not limited to:

- Legal and regulatory frameworks / harmonized regulations
- Project approvals and licencing
- Institutional control
- Integration with safety: radiation protection of the people and the environment
- International guidance

Session 3 will consider the relationship between environmental, social and economic interests, and the challenges and opportunities to enhance public acceptance of the industry. The following topics are suggested, but not limited to:

- Industry standards and guidance
- Sustainable development
- Circular economy
- Stakeholder engagement and socio-economic assessments
- Intergenerational project considerations

Participation and Registration

All persons wishing to participate in the event have to 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 or invited organization, participants are requested to submit their application via the InTouch+ platform (https://intouchplus.iaea.org) to the competent national authority (Ministry of Foreign Affairs, Permanent Mission to the IAEA or National Atomic Energy Authority) or organization for onward transmission to the IAEA by **29 August 2025**, following the registration procedure in InTouch+:

- 1. Access the InTouch+ platform (https://intouchplus.iaea.org):
 - Persons with an existing NUCLEUS account can sign in to the platform with their username and password;
 - Persons without an existing NUCLEUS account can register <u>here.</u>
- 2. Once signed in, prospective participants can use the InTouch+ platform to:
 - Complete or update their personal details under 'Complete Profile' and upload the relevant supporting documents;
 - Search for the relevant event under the 'My Eligible Events' tab;
 - Select the Member State or invited organization they want to represent from the drop-down menu entitled 'Designating Authority' (if an invited organization is not listed, please contact InTouchPlus.Contact-Point@iaea.org);
 - If applicable, indicate whether financial support is requested and complete the relevant information (this is not applicable to participants from invited organizations);
 - Based on the data input, the InTouch+ platform will automatically generate the Participation Form (Form A) and/or the Grant Application Form (Form C);
 - Submit their application.

Once submitted through the InTouch+ platform, the application, together with the auto-generated form(s), will be transmitted automatically to the required authority for approval. If approved, the application, together with the applicable form(s), will automatically be sent to the IAEA through the online platform.

NOTE: The application for financial support should be made, together with the submission of the application, by **29 August 2025**.

For additional information on how to apply for an event, please refer to the <u>InTouch+ Help</u> page. Any other issues or queries related to InTouch+ can be sent to <u>InTouchPlus.Contact-Point@iaea.org</u>.

Selected participants will be informed in due course on the procedures to be followed with regard to administrative and financial matters.

Participants are hereby informed that the personal data they submit will be processed in line with the Agency's Personal Data and Privacy Policy and is collected solely for the purpose(s) of reviewing and assessing the application and to complete logistical arrangements where required. The IAEA may also use the contact details of Applicants to inform them of the IAEA's scientific and technical publications, or the latest employment opportunities and current open vacancies at the IAEA. These secondary purposes are consistent with the IAEA's mandate. Further information can be found in the Data Processing Notice concerning IAEA InTouch+ platform.

Papers and Presentations

The IAEA encourages participants to give presentations on the work of their respective institutions that falls under the topics listed above.

Participants who wish to give presentations are requested to submit an abstract of their 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 two pages (including figures and tables) and should not exceed 500 words. It should be sent electronically to Ms Carmen Good, the Scientific Secretary of the event (see contact details below), not later than **29 August 2025**. Authors will be notified of the acceptance of their proposed presentations by **12 September 2025**.

Submission of a paper should be confirmed, together with the submission of the main application via the InTouch+ platform, by **29 August 2025**.

Expenditures and Grants

No registration fee is charged to participants.

The IAEA is generally not in a position to bear the travel and other costs of participants in the event. The IAEA has, however, limited funds at its disposal to help meet the cost of attendance of certain participants. Upon specific request, such assistance may be offered to normally one participant per country, provided that, in the IAEA's view, the participant will make an important contribution to the event.

The application for financial support should be made, together with the submission of the application, by **29 August 2025**.

Venue

The event will be held at the Vienna International Centre (VIC), where the IAEA's Headquarters are located. Participants must make their own travel and accommodation arrangements.

General information on the VIC and other practical details, such as a list of hotels offering a reduced rate for IAEA participants, are listed on the following IAEA web page:

www.iaea.org/events.

Participants are advised to arrive at Checkpoint 1/Gate 1 of the VIC one hour before the start of the event on the first day in order to allow for timely registration. Participants will need to present an official photo identification document in order to be admitted to the VIC premises.

Visas

Participants who require a visa to enter Austria should submit the necessary application to the nearest diplomatic or consular representative of Austria at least four weeks before they travel to Austria. Since Austria is a Schengen State, persons requiring a visa will have to apply for a Schengen visa. In States where Austria has no diplomatic mission, visas can be obtained from the consular authority of a Schengen Partner State representing Austria in the country in question.

IAEA Contacts

Scientific Secretary:

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

Event Web Page

Please visit the following IAEA web page regularly for new information regarding this event:

www.iaea.org/events/evt2404564