



IAEA

International Atomic Energy Agency

**International Symposium on Uranium Raw
Material for the Nuclear Fuel Cycle:
Exploration, Mining, Production, Supply and
Demand, Economics and Environmental Issues
(URAM-2014)**

Vienna, Austria

23–27 June 2014

Organized by the

International Atomic Energy Agency (IAEA)

in cooperation with the

OECD Nuclear Energy Agency (OECD/NEA)

World Nuclear Association (WNA)

United Nations Economic Commission for Europe (UNECE)

Announcement and Call for Papers

A. Introduction

In 2005 and 2009, the International Atomic Energy Agency (IAEA) held, at its Headquarters in Vienna, Austria, two major international symposia on uranium production and raw materials for the nuclear fuel cycle in order to discuss all aspects of uranium raw materials for the nuclear fuel cycle with an emphasis on ensuring the long term sustainability of nuclear power programmes.

Since the last of these symposia, notwithstanding the Fukushima Daiichi nuclear accident in 2011, there continue to be strong expectations as to the growth of nuclear power worldwide, leading to an increase in uranium demand and in turn of the price of uranium. Since 1990, the gap between uranium demand and fresh supply from existing mines has been filled by secondary supply. However, with decreasing availability of such ‘above ground resources’, the uranium resource base and production have to be further expanded. The uranium industry revived in the late 2000s, and there was a dramatic spurt in uranium exploration and mining activities in several countries, reflected in increased production, which for a while effectively closed the production–consumption gap. However, demand will significantly exceed supply again very soon.

Adequate services and expertise and modern technologies are needed to ensure a sustainable supply of uranium raw materials to fuel both operating and future nuclear power reactors. Further, good regulation, sound environmental management, education and training are required to minimize the environmental and social impact of uranium mining and production and to contribute to public acceptance of nuclear energy.

B. Objectives of the Symposium

The long term sustainability of nuclear power will depend on, among several factors, an adequate supply of uranium resources that can be delivered to the marketplace at competitive prices. New exploration technologies and a better understanding of the genesis of uranium ores will be required to discover often deep-seated and increasingly hard to find uranium deposits. Exploration, mining and milling technologies should be environmentally benign, and site decommissioning plans should meet the requirements of increasingly stringent environmental regulations and societal expectations.

The purpose of this symposium is to analyse uranium supply–demand scenarios and to present and discuss new developments in uranium geology, exploration, mining and processing, as well as in environmental requirements for uranium operations and site decommissioning. The presentations and discussions at URAM-2014 will:

- Lead to a better understanding of the adequacy of uranium sources (both primary and secondary) to meet future demand;
- Provide information on geological models, new exploration concepts, knowledge and technologies that will potentially lead to the discovery and development of new uranium resources;

- Describe new production technologies that have the potential to more efficiently and sustainably develop new uranium resources; and
- Document the environmental compatibility of uranium production and the overall effectiveness of progressive final decommissioning and, where required, remediation of production facilities.

C. Structure and List of Topics

Contributed papers will be accepted on the following topics:

1. Uranium markets and industry

- Policies
- Supply and demand
- Economics of production
- Financing of uranium projects
- Secondary supplies

2. Uranium geology

- Petro-mineralogical studies
- Geochemical research
- Genetic models
- Uranium provinces

3. Advances in exploration and uranium mineral potential modelling

- Geophysical exploration
- Geochemical exploration
- Exploration success stories
- Mineral potential modelling

4. Evaluation of uranium resources

- Estimation of resources
- International reporting standards
- Conceptual, pre-feasibility and feasibility studies

5. Uranium mining and processing

- Conventional mining developments
- Ore processing developments, including heap leaching

6. Uranium production based on in situ leaching (ISL)

- ISL techniques
- ISL case studies

7. Thorium and rare-earth element (REE)-associated resources — international and national initiatives

- Thorium resources
- Thorium utilization scenarios and policies
- By-products of thorium extraction (uranium, REEs, etc.)
- Thorium long term storage programmes

8. Health, safety and environment

- Radon and mine ventilation
- Tailings and waste management
- Risk-based assessments
- Regulatory issues
- Managing legacy issues

9. Social licensing in uranium production

- Stakeholder communications
- Social return
- Case studies

10. Education and training in the uranium production cycle

11. Uranium from unconventional resources

- Recover of uranium as a by-product
- Uranium extraction from phosphoric acid
- Uranium from seawater

12. The Future of uranium — Focus on development of greenfield sites

- Present status of development of greenfield sites
- Opportunities and challenges

D. Submission of Abstracts, Papers and Posters

Any participant wishing to present a paper or poster during this symposium must submit a 500 word abstract in electronic format (no paper copies) directly to the IAEA. Instructions on how to upload the abstract to the symposium's web browser-based file submission system (IAEA-INDICO) will be available on the symposium web page (see Section P) as of 2 December 2013. The abstract must be submitted through this system **between 2 December 2013 and 3 February 2014**. No other form of submission will be accepted.

Authors must further submit the following two forms to their appropriate governmental authority (see Section J) for transmission to the IAEA. These forms must be received by the IAEA no later than **3 February 2014**.

- Participation Form (Form A)
- Form for Submission of a Paper (Form B)

IMPORTANT: the electronically received abstract will be considered by the Programme Committee only if these two forms have been received by the IAEA through the established official channels (see Section J).

E. Papers and Symposium Proceedings

a) Acceptance of papers

Authors will be notified by email by **31 March 2014** as to whether, on the basis of the electronically received abstracts, their papers have been accepted for oral presentation or for poster presentation. All accepted abstracts, both for oral and poster presentation, are invited to provide a full written paper for the proceedings following the instructions given. Submitted papers will be checked against the aims of the symposium, for compliance to the instructions and for quality, and may be accepted, rejected or accepted subject to modification at the discretion of the Scientific Secretaries.

b) Submission of full papers:

Full papers must be submitted through the IAEA-INDICO file submission system. Specifications for the layout and electronic format of the full papers and for the preparation of posters will be posted on the symposium web page by March 2013. The IAEA-INDICO platform will be reopened for submission of accepted papers as of **31 May 2014**. The IAEA will not accept papers submitted after the deadline, and any subsequent submission by email will also not be accepted.

c) Publication of proceedings:

The proceedings of the symposium will be published by the IAEA as soon as possible after the symposium. Authors should note that material which was not presented at the symposium orally or by poster will not be included in the proceedings.

F. Target Participants

URAM-2014 is intended to bring together scientists, exploration and mining geologists, engineers, operators, regulators and fuel cycle specialists to exchange information and discuss updated research and current issues in uranium geology and deposits, exploration, mining and processing, production economics and environmental and legal social issues.

G. Participation

All persons wishing to participate in the symposium are requested to register online in advance through the symposium web page (See section P). In addition they are required to send a completed Participation Form (Form A) and, if applicable, the Form for Submission of a Paper (Form B) and the Grant Application Form (Form C) to their appropriate governmental authority for subsequent transmission to the IAEA. A participant will be accepted only if the Participation Form is transmitted to the IAEA through one of the established official channels (see section J) to their appropriate governmental authority — or, in the case of prospective participants from invited organizations, to their organization — for subsequent transmission to the IAEA.

H. Exhibitions

A limited amount of space will be available for commercial vendors' displays/exhibits during the symposium. Interested parties should contact the Scientific Secretariat by email:

URAM2014.Contact-Point@iaea.org.

I. Expenditures

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 symposium. The IAEA has, however, limited funds at its disposal to help meet the cost of attendance of certain participants. Such assistance may be offered upon specific request to normally one participant per country provided that, in the IAEA's view, the participant on whose behalf assistance is requested will make an important contribution to the symposium.

If governments wish to apply for a grant on behalf of one of their specialists, they should address specific requests to the IAEA to this effect. Governments should ensure that applications for grants are:

1. Submitted by **3 February 2014**;
2. Accompanied by a duly completed and signed Grant Application Form (Form C); and

3. Accompanied by a completed Participation Form (Form A) and, if applicable, a completed Form for Submission of a Paper (Form B).

Applications that do not comply with the above conditions cannot be considered.

Approved grants will be issued in the form of a lump sum payment that usually covers only part of the cost of attendance.

J. Channels of Communication

All persons wishing to participate in the symposium are requested to register online in advance through the symposium web page (See section P). In addition they are required to send a completed Participation Form (Form A) and, if applicable, the Form for Submission of a Paper (Form B) and the Grant Application Form (Form C) to their appropriate governmental authority — or, in the case of prospective participants from invited organizations, to their organization — for subsequent transmission to the IAEA. A participant will be accepted only if the Participation Form is transmitted to the IAEA through one of the established official channels (see section J) or by an organization invited to participate.

K. Working Language

The working language of the symposium will be English. All communications, abstract, presentations, posters and full papers must be in English.

L. Distribution of Documents

A preliminary programme and Book of Abstracts will be posted on the IAEA's web page for the symposium as soon as possible.

The final programme and Book of Abstracts (in electronic format only) will be available free of charge upon registration at the symposium.

M. Visas

Designated 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 entry into Austria. Please note that Austria is a Schengen State and therefore persons who require 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.

N. Key Deadlines

Submission of Form B and abstract: **3 February 2014**

Submission of Form C (must be accompanied by Form A): **3 February 2014**

Notification of acceptance of abstract: **31 March 2014**

Submission of full paper (**only upon request by the IAEA**): **31 July 2014**

Early submission of Form A for prospective participants not requesting financial assistance (Form C) is encouraged.

O. Symposium Secretariat

Scientific Secretaries of the Symposium:

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Subsequent correspondence on scientific matters should be sent to either of the Scientific Secretaries and correspondence on administrative matters to the IAEA Conference Services Section.

P. Symposium Web Page

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

<http://www-pub.iaea.org/iaeameetings/46085/International-Symposium-on-Uranium-Raw-Material-for-Nuclear-Fuel-Cycle-Exploration-Mining-Production-Supply-and-Demand-Economics-and-Environmental-Issues>