

IAEA Technical Meeting Amman, Jordan

Uranium Exploration and Mining Methods

**Roundtable Meeting on the Upsurge of the
Uranium Mining and Production Industry**



IAEA

International Atomic Energy Agency

The Meeting

- At the IAEA General Conference in Vienna during September 2008.
- To Identify and discuss key safety and environmental issues associated with the recent upsurge in the uranium mining and production industry.
- Attended by Member States, operators and regulators from the major uranium producing countries as well as developing nations and newcomers.
- The meeting comprised a set of key presentations followed by a roundtable discussion.

Presentations

- The IAEA Perspective.
- The Australian Regulatory Perspective.
- The Australian Uranium Industry Perspective.
- The Malawian Resource Development Perspective.

Key Issues Identified

- The legacy issues in the industry arising from poor past practice. (e.g. tailings).
- The lack of an adequate regulatory structure in many developing countries with limited resources e.g. Africa and Central Asia.
- The entry of numerous small inexperienced uranium mine operators into the uranium business, which lack the knowledge and history of the major players.
- The shortage of skilled personnel in the industry, both on the operator and regulatory side (e.g. radiation safety).

Recent Initiatives by the IAEA to Assist Member States

- Regional approaches to common problems in remediation and developing regulatory control and monitoring systems in Africa, Asia and South America.
- Cooperative approaches with other organizations such as the World Bank, the OSCE, and the UNDP.
- The promotion of the concept of lifecycle planning at an early stage of a uranium mining project.
- Cooperation with the World Nuclear Association on Sustainable Global Best Practices.

Recent Initiatives by the IAEA to Assist Member States

- The UPSAT peer review programme coordinated by the IAEA provides a mechanism for the transfer of best practice principles from experienced operators to smaller less experienced operators.
- In the future the development of international networks of regulators and operators will play a key role in spreading the principles of Best Practice to uranium producers across the world.

Recent Initiatives by the IAEA to Assist Member States

- Industry initiatives include the development of a Global Stewardship Programme for the Uranium Industry by the Uranium Stewardship Working Group of the WNA.
- Major limitations at the IAEA in assisting Member States revolve around the need for significant additional funding and human resources to tackle the issues arising from the upsurge in uranium exploration and production.

Conclusions

- There is a global lack of resources (IAEA, operators and regulators).
- More requires to be done in developing countries.
- It was suggested by the Agency that countries should delay the implementation of uranium projects until their regulatory infrastructure was fully in place.
- Operators to commit to use the WNA principles and Stewardship programme in conjunction with Codes of Practice to implement a form of self regulation until a regulatory infrastructure could be developed.
- Major uranium players to mentor the juniors.

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Uranium Exploration and Mining Methods

Technical Meeting on Implementation of Sustainable
Best Practice in Uranium Mining and Processing



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The Technical Meeting

- At IAEA in Vienna 15-17 October 2008.
- To discuss Principles for Managing Radiation, Health and Safety, Waste and the Environment and their introduction to newcomers
- Attended by Member States, operators and regulators from the major uranium producing countries as well as developing nations and newcomers.
- The meeting comprised a set of key presentations followed by discussions.

Presentations

- The IAEA Programme
- The WNA approach
- Experienced operators and regulators
- Emerging countries operators and regulators
- Discussions

Key Issues Identified

- We are in a new era where growing energy needs and environmental issues are the key challenges
- Developing countries need a lot of clean energy now for their own developments and developed countries must help each other tackling this challenge
- In fact, for the sustainability of global uranium supply, adopting best practices is essential at all production sites: existing, new and expanded
- Some cooperation between experienced and emerging countries has to be established

Conclusions

- Building and gaining broader social support
- Regulations - How to start between simplified to comprehensive regulatory regimes for uranium mining and processing
- An acute sense of proportion is needed
- Local ownership and empowerment remain of paramount importance
- Uranium stewardship around E, H&S matters
- Necessary key role of governments
- Security of the product
- Some key aspects of the EH&S aspects of uranium mining go beyond IAEA's scope
- A need for a feedback from the MSs for seeking, learning and clarifying the needs from emerging uranium producers