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International overview of ISL uranium mining operations

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In situ leach (ISL; also called in situ leaching or in situ recovery, ISR) mining has become one of the standard uranium production methods, following early experimentation and production in the 1960s. Its application to amenable uranium deposits (in certain sedimentary formations) has been growing in view of its competitive production costs and low surface impacts. In 1997 the ISL share in total uranium production was 13%; by 2009 it had grown to over 30%, reaching 46% in 2011. In the past, ISL technology was applied mainly in Ukraine, the Czech Republic, Uzbekistan, Kazakhstan, Bulgaria and the United States of America (USA). Recently it has been used in Kazakhstan, Uzbekistan, the USA, Australia, China and the Russian Federation, with small operations or experiments elsewhere. ISL mining is gaining widespread acceptance.

The IAEA is preparing an overview document to show how ISL experience around the world can be used to direct the development of technical activities, taking into account environmental considerations and an emphasis on the economics of the process, including responsible mine closure. With this document Member States and interested parties will have more information to design and efficiently and safely regulate current and future projects, with a view to maximize economic performance and minimize negative environmental impact. Highlights of the report's findings will be provided here with a summary of the IAEA's involvement in ISL over recent decades. Many reference links are provided to allow access to voluminous additional information.

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