



INSC Project MC3.01/13

EC Contract N° NSI/2014/343-969

“Training and Tutoring for experts of the NRAs and their TSOs for developing or strengthening their regulatory and technical capabilities”

Regional Training Course

“Regulation of Uranium Mining”

organized by ITER-Consult in East Europe-Central Asia Region

Mongolia, Ulaanbaatar – November 1 – 5, 2016

Flower Hotel

Bayanzurkh Duureg, Zaluuchuud Avenue 18, Ulaanbaatar49, Mongolia,
Tel: +976-11-458330, 458289; <http://www.flower-hotel.mn>

Course Objective

The training course covers different technical and regulatory aspects concerning uranium mining. Topics as uranium natural resources, different kinds of mines, technological processes for mining, milling and management of mining waste and tailings are presented. Uranium mining legislation and international safety requirements are included. Regulatory safety, radiation protection and environmental requirements during site preparation, construction, operation, decommissioning and release from regulatory control are foreseen. The key issues to be covered by a regulatory guideline for uranium mining will be presented together with the content of safety documentation to be submitted to NRA for licensing, approval and authorization in all steps of the lifecycle.

Occupational safety aspects to be regulated and environmental aspects and radiological impact connected with uranium mine operation and subsequent decommissioning are outlined too. Remediation, long term monitoring and maintenance of closed mines are presented.

A technical visit to a Uranium mining site is organised including presentations from the operator related to mining environmental impact and lessons learnt.



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Course Daily Program

Tuesday 1 st November, 2016	
08.30 – 9.00	Registration & Organizational aspects
9.00 – 13.00	Training objectives & program – A. Madonna (ITER)
	EU infrastructure for radiation protection and nuclear safety – A. Madonna (ITER)
	Role and responsibilities of a Nuclear Regulatory Authority (NRA) – A. Madonna (ITER)
	Uranium resources and mineralization of Mongolia – Baatartsogt (MRA)
13.00 – 14.00	Lunch
14.00 – 17.00	Uranium resources and mining processes – F. Vidic (JSI)
	Different kinds of mines. Open pit and underground mining – F. Vidic (JSI)
	Technological processes for extraction of uranium and following processes – F. Vidic (JSI)

Wednesday 2 nd November 2016	
9.00 – 13.00	Tailings management – F. Vidic (JSI)
	Uranium mining legislation references – F. Vidic (JSI)
	Occupational safety in uranium mining – F. Vidic (JSI)
13.00 – 14.00	Lunch
14.00 – 17.00	Radiation protection aspects and requirements for workers – F. Vidic (JSI)
	Transport activities related to U mining activities – D. Zuzaan (GASI)
	Emergency preparedness for U mining sites – D. Zuzaan (GASI)

Thursday 3 rd November, 2016	
9.00 – 13.00	Safety requirements for U Mining – N. Zeleznik (ITER)
	International safety requirements – N. Zeleznik (ITER)
	Authorization process and Content of SAR for licensing of mining and milling activities – N. Zeleznik (ITER)
13.00 – 14.00	Lunch
14.00 – 17.00	Decommissioning of U mining facilities – K. Horvath (HAEA)
	Rehabilitation of U mining sites – K. Horvath (HAEA)
	Remediation, long-term monitoring and maintenance of the closed uranium mine – K. Horvath (HAEA)

Friday 4 th November, 2016	
9.00 – 13.00	Public information – A. Madonna (ITER)
	Course Summary
	Questionnaire
13.00 – 14.00	Lunch
14.00	Departure from Ulaanbaatar for the U mining site

Saturday 5 th November 2016	
9.00 – 13.00	Visit to U mining site
	Environmental impact from uranium mining, conversion and enrichment activities (Areva)
	Lessons learned from operational experience of U mining sites (Areva)
	Lunch
14.00 – 17.00	Return to Ulaanbaatar from the U mining site
	Opinion from trainees
	Certificates awarding
	Training Minutes