

Getting NORM Affected Projects Licensed and Efficiently Operated

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ABSTRACT

Over their whole lifecycle and with respect to safety, efficiency and regulatory compliance uranium or REE mines, mills and refineries can essentially benefit from capable management of Naturally Occurring Radioactive Material (NORM). In particular with regard to

- Radiation safety,
- Radioecological impact,
- Decontamination of facilities,
- Management of NORM waste,
- Decommissioning of facilities and
- Remediation of sites,

well-planned measures are required to convince regulators of issuing necessary licenses. However, as regulations are getting continuously tougher driven by the insistent request of public, states and institutions for improved sustainability, uranium or REE production projects increasingly do not get licensed out of safety concerns or due to insufficient sustainability provisions.

Key is to overcome the specific challenges NORM poses in compliance with valid regulatory requirements. A range of technologies to facilitate that is available: of highest importance is strict fulfillment of all safety requirements, namely radiation safety as cross-cutting issue. Various opportunities for separation of contamination enable re-use of equipment or decrease the NORM waste volume dramatically. To facilitate disposal appropriate treatment leads to fixation and chemical stability and thus can minimize potential hazards. At the end of their service life specific decommissioning and remediation technologies facilitate closure of uranium or REE production and prevent from future legacies and liability risks.

In this light the overall request for sustainability should be regarded not as a burden, but as a chance yielding in the long run also certain economic advantages like advanced competitiveness and decreased follow-up costs.