

REMEDIAL TECHNOLOGIES FOR MINE WASTES - AN ITRC WEB BASED GUIDANCE¹

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Abstract. Historic mining practices and the lack of mineland reclamation have led to sites with significant environmental and human health issues. Typical remedial solutions are often lengthy and expensive, and are unacceptable to the mining community, the regulatory community and to the public. Innovative approaches and technologies need to be developed and implemented that solve environmental issues and remove existing regulatory barriers. The Interstate Technology and Regulatory Council (ITRC) is a state-led, national coalition helping regulatory agencies, site owners, and technology developers and vendors achieve better environmental protection through the use of innovative technologies. Through open communication among its partners, ITRC is streamlining and standardizing the regulatory approval process for better, more cost-effective, environmental technologies. Funding comes from the Departments of Defense and Energy, as well as the US Environmental Protection Agency and is used to support teams to address state environmental priorities. The ITRC mine waste team was formed to address mining issues and produced a web based guidance to help select technologies that address a wide variety of mine waste issues (ITRC MW-1, 2010 at <http://www.itrcweb.org/miningwaste-guidance>). The guidance contains decision trees, technology overviews, case studies, and regulatory challenges. The mine waste team has collected 59 case studies on the treatment of mining-influenced water and solid mining waste. The decision trees, through a series of questions, guide users to a set of treatment technologies that may be applicable to their particular situation. Each technology is described and includes applicability, advantages, limitations, performance, stakeholder concerns, regulatory considerations, and lessons learned. The technology overviews include information to help users decide how well the technology may fit their particular site and remedial/reclamation goals.

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