

Development of International (ISO) Standards for Mine Reclamation¹

W. Lee Daniels²

Abstract: In 2012, the International Standards Organization (ISO) reactivated Technical Committee (TC) 82 – Mining, which deals with development of standards for many aspects of mining equipment, control processes, practices, and safety. In the USA, participation in the ISO standards process is administered by the American National Standards Institute (ANSI) which subsequently formed Technical Advisory Group (TAG) 82 to manage appropriate input and advice on new mining related standards. The activities of TAG 82 were managed contractually by the Canadian Standards Association (CSA) up to the Fall of 2021. All final votes on ISO proposals are placed by ANSI following input from the managing association(s). In 2014, a new and very broad proposal for the development of standards for mine reclamation was promoted by South Korea and accepted by TC 82. South Korea was the initial lead country (Secretariat); that role was transferred to France in 2018. All reclamation related activities are managed by TC 82 Subcommittee (SC) 7 and various working groups (WG's) were authorized over time. To date, SC-7 has functioned via three approved WG's, Mine Reclamation Terminology (WG-1; Lead - South Korea), Mine Closure and Reclamation Management Planning (WG-2; Lead - Canada), and most recently (2019), Abandoned (Legacy) Mine Management (WG-3; Lead - Australia). Other proposals for new topics such as mine water monitoring and tailings management have been or are being considered. The overall ISO standard development process requires transparency and input from interested and affected stakeholders. Proposed standards advance via consensus from participating countries along a sequential five-step review and approval process which generally takes a minimum of three years to complete. The first two standards described above (Terminology and Planning) were published in 2020 and 2021, respectively. The abandoned mine management standard is in the draft review phase. The adoption of any international reclamation standards raises issues of (a) neutrality with respect to existing national/state/local regulations, (b) applicability to highly variable and site-specific climatic/geologic/mining/socio-political conditions, and (c) avoidance of directly specifying or favoring certain technologies or commercial products. Compliance with any adopted final ISO standards is voluntary. Due to a change in TAC managing associations in the fall of 2021, the USA is no longer a full voting member, but can maintain input status on any WG's as an "observing member."

Additional Keywords: Mine Planning, Mining Terminology, Abandoned Mined Lands.

-
1. Oral paper presented at the National Meeting of the American Society of Reclamation Sciences, Duluth, MN. June 12-16, 2022. Published by ASRS; 1305 Weathervane Dr., Champaign, IL 61821.
 2. W. Lee Daniels (* presenter), Professor, School of Plant & Environmental Sciences, Virginia Tech, Blacksburg, VA 24061.