



**We
Empower Coal**

NIOSH SBIR Program for Mine Safety Overview

The mining industry is one of the more challenging occupational sectors with regards to health and safety. Miners must deal with adverse natural conditions while working in restricted spaces with limited visibility. The industry also deals with a variety of unknown conditions, including the physical characteristics of the material being mined as well as the surrounding strata which ultimately form the mine complex. All health and safety topics for the mining industry are eligible for consideration. Some example topics include exposure of mine workers to diesel exhaust, hearing loss prevention in miners, reduction of injuries from materials handling, reduction of injuries and fatalities from powered-haulage equipment, controlling coal and silica dusts, prevention of musculoskeletal disorders, health and safety during construction and PHS 2010-2, Omnibus Solicitation for SBIR/STTR Grant Applications January 2010 NIH, CDC, FDA, and ACF Program Descriptions and Research Topics CDC 228 maintenance operations, control of chemical hazards and toxic substances, assessment of intervention effectiveness, and dissemination of proven interventions into the mining workplace. The chief requirement for all projects is a focus on reducing the risks of injuries and illnesses directly related to working in a mining environment. Advancements in technology and knowledge which address any of the above concerns would be beneficial to improving mine-worker health and safety. The advancements could be achieved through developing new and innovative technologies, enhanced understanding of the working environment, and improved approaches and strategies for dealing with the issues.

- A. Develop new approaches, technologies, or strategies for dealing with excessive exposures in the mining environment.
- B. Develop new approaches, technologies, or strategies for assisting in mine escape and/or mine rescue operations. Particular interest is for underground coal mines.
- C. Determine the effectiveness and/or development of improved approaches for training used to protect the health and safety of mine workers.
- D. Determine a methodology for evaluating the safety culture of the mining community and develop an improved model which enhances the overall safety of surface and underground mining operations.