

The Alpha Foundation for the Improvement of Mine Safety and Health, Inc.  
**- Attaining Results**

The Alpha Foundation for the Improvement of Mine Safety and Health, Inc. (Foundation) is pleased to present its sixth semi-annual report, **Attaining Results**. This report provides an update on our progress to address the Foundation's vision in collaboration with the growing engagement from the research community. In addition, we are pleased to report further administrative accomplishments marked by success in development of orderly procedures and practices now that the Foundation has worked through its third funding cycle.

### Grant Solicitations

#### *First Solicitation Cycle:*

Several of the first awards are now entering their final six months of effort with project completions planned for October 31, 2015, while others will continue either by design, or as extensions have been granted in recognition of challenges encountered by investigators in their research plans. The Foundation continues to work closely with the grantees to provide the input and support needed to improve the project outcomes and to address:

- Problems in accessing mining sites and facilities
- Issues in acquiring sensitive safety and health data
- Delays in obtaining agency permits

All projects will conclude with a Final Technical Report that will be posted to the Foundation website. Several projects are also producing peer reviewed publications and other publications and presentations that will prove valuable in disseminating the research findings, including health and safety implications and recommendations. The Foundation is currently working to gather and organize this material and will provide information in the near future on the Foundation website regarding linkage to these external publications. Several projects have cooperating partnerships with other universities, mining and equipment companies, technology developers, government agencies and organizations to aid in the execution or validation of the research studies or training activities. In fact, over 40 such partnerships have been created under this proposal cycle. Through these collaborations, research developments and results are being shared with the broad mining community through the direct engagement of stakeholders in these research projects. A synopsis for each funded project under this cycle is available on the Foundation website ([http://www.alpha-foundation.org/uploads/AF\\_Synopsis\\_FirstAward\\_All.pdf](http://www.alpha-foundation.org/uploads/AF_Synopsis_FirstAward_All.pdf)).

#### *First "Short-Term" Solicitation Cycle:*

Several of the short-term awards are now entering their final months of effort with project completions planned for August 31, 2015. It is hoped that the outcome of these projects will contribute to improving research and understanding in some of mining's most difficult and evasive areas. These grant recipients and project titles are provided on the website ([http://www.alpha-foundation.org/uploads/AF\\_Synopses\\_Short\\_FirstAward.pdf](http://www.alpha-foundation.org/uploads/AF_Synopses_Short_FirstAward.pdf)).

An overview of the research portfolio and progress, after the first two award cycles, can be found in a recent presentation (Joint Meeting, West Virginia Coal Mining Institute and Central Appalachian Section of SME, Stonewall Jackson Resort, West Virginia, May 13-15, 2015), also posted on the website:

[http://www.alpha-foundation.org/uploads/AF\\_20150513.pdf](http://www.alpha-foundation.org/uploads/AF_20150513.pdf).

### *Second Solicitation Cycle:*

The Foundation published a call for research proposals in its second major grant cycle, in May 2014. Following the submission of 69 concept papers, 24 full proposals were received and peer reviewed, from which 11 have been selected for funding with grant negotiations currently underway. Grant agreements are expected to be completed by August 2015. Once again, the projects targeted for award include all of the Foundation's four main focus areas: 1) Health and Safety Interventions; 2) Mine Escape, Rescue and Training; 3) Safety and Health Management and Training; and, 4) Injury and Disease Exposure and Risk Factors. The Fires and Explosion topical area was most heavily targeted, with three projects selected for funding covering ventilation enhancements for extended cut continuous mining, enhanced modeling and mitigation strategies for methane explosions, and design guidelines for application of secondary barriers for explosion control. One project was selected for funding in each of the following topical areas:

- Ground Control
- Monitoring Systems and Integrated Control Technologies
- Machine Design and Ergonomics
- Communications and Tracking
- Training and Decision Making
- Safety and Health Management
- Training
- Respiratory Disease

Once the grant agreements have been executed, a synopsis of each project will be posted on the Foundation's website.

### Five-Year Planning Process

With the successful execution of three award cycles, the Alpha Foundation Board has begun a planning process to assess the remaining gaps or weak areas in mining safety and health that are not being adequately addressed by the previous awards. The Foundation has been seeking assessment of the research program by contacting members from various constituencies in the mining safety and health community, through online surveying and one-on-one interviews. In addition to identifying research needs and approaches to consider in future research, the assessment process also sought input on development of metrics of success from the currently funded efforts. The various inputs and recommendations are now being analyzed. A plan focused on the "next five years", which will be a significant portion of the expected life of the Alpha Foundation, will be completed by the end of 2015. It will serve as a guide to future grant making activity of the Foundation.

## Administrative Progress

During this reporting period, the Foundation continued to perform and improve its administrative procedures and operational efforts in an effective, efficient and timely fashion. Developments include:

- Implemented the use of BoardMax for Board use, including Board meeting agendas, scheduling, and document management
- Selected SmartSimple as the grant management software that will be utilized. This software will be owned by Glenmede but used by the Alpha Foundation to facilitate the grant management process, which should greatly increase our efficiency in grantmaking and grant monitoring. We expect this to be operational in the Fall of 2015

The Foundation carefully follows and monitors its investment strategy with Glenmede to ensure that its assets are fully invested to allow growth, while recognizing the limited life of the Foundation.

The Foundation continues to develop and update its website ([www.alpha-foundation.org](http://www.alpha-foundation.org)), which serves as the main medium for communication with the broader stakeholder community. Those interested in the Foundation and its programs are encouraged to visit the site to stay informed of solicitations, announcements and deadlines. Formal presentations made by the Foundation Directors and staff are available on the website (<http://www.alpha-foundation.org/Presentations.html>).

In closing, the Foundation has now reached organizational maturity and gained considerable experience in the solicitation process and selection of promising projects. As a result, the Foundation will continue to present this report on an annual basis, with a summer release to provide progress reports on the completion and announcement of funded research projects.



Michael Karmis, President  
Alpha Foundation for the Improvement of Mine Safety and Health, Inc.  
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