

## **The Alpha Foundation for the Improvement of Mine Safety and Health, Inc.**

**- *Making a Difference***

The Alpha Foundation for the Improvement of Mine Safety and Health, Inc. (Foundation) is pleased to present its fourth semi-annual report, *Making a Difference*. This report provides an update on progress in addressing the Foundation's vision in collaboration with our growing engagement of the research community. In addition, we are pleased to report on further administrative accomplishments marked by success in development of orderly procedures and practices now that the Foundation is fully funded.

### **Grant Solicitations**

#### *First Solicitation Cycle:*

As I wrote in my previous report, the original call for the first proposal cycle was issued on January 18, 2013 and the award decisions were made public on September 30, 2013. The results of the two-stage process introduced for this cycle was 16 projects approved by the Directors for funding. With the able assistance of Glenemede we were able to manage the execution of all 16 contracts in a timely manner so that these projects could be launched by mid-fall. A total amount of approximately \$10,000,000 has been committed to these research efforts that will be completed in a time period ranging from two to three years. The first bi-annual progress reports from those awards are expected to be received by May 1. We believe that these reports will provide a good balance between appropriate monitoring on the part of the Foundation and reasonable expectations on the part of the investigators. A synopsis for each funded project is now available on the Foundation website.

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

This solicitation was issued October 24, 2013, to support **Short-Term Research Projects** seeking new, exploratory and developmental research proposals. The response to this solicitation was encouraging with 53 proposals received by the deadline of December 15, 2013. These were first evaluated internally and those judged to be competitive were sent for external peer-review. This one-stage process was possible by using a shorter proposal format, expecting that investigators would be offering ideas that were based on new approaches and that the proposals would most likely have minimal background information and previous research to evaluate.

The Foundation is pleased to announce that approximately \$750,000 in short-term research grants was awarded, targeting innovative solutions towards fulfilling its vision of enabling miners to be free of work-related injury and disease. The grant recipients and project titles are listed below (for more information see website, [http://www.alpha-foundation.org/uploads/Alpha\\_Foundation\\_Press\\_Release\\_20140501.pdf](http://www.alpha-foundation.org/uploads/Alpha_Foundation_Press_Release_20140501.pdf)):

- Boston University School of Public Health  
The Impact of Contractor Utilization on Health and Safety

- Colorado School of Mines  
Combustion Modeling of Explosive Gas Zones in Longwall Gobs
- University of Nevada  
Early Warning Safety Hazard Predictor for Preventive Ventilation Management
- Southern Illinois University Carbondale  
The Precise Determination of Rockbolt Performance Underground
- West Virginia University Research Corporation  
Development of a Gas and Dust Explosion Model

These research efforts will be completed within a 12 to 15 month timeframe. A synopsis of each funded project will be placed on the Foundation website at a later date.

The Foundation would like to thank all the participants in the responses to these solicitations, for their interest and commitment to mine safety and health, and the many reviewers, for their effort and dedication in assisting the Directors to select the most promising projects for funding.

*Second Solicitation Cycle:*

The Foundation will publish a call for research proposals in its second major grant cycle, in May, 2014, with the expectation that awards will be announced in the first quarter of 2015. Responses will again be received initially as concept papers and those most appropriate will be requested to submit full proposals. We will continue to seek proposals in the areas of Safety, Health, Training and Safety and Health Management, with emphasis on areas that have not been addressed in previous grant awards, and targeting research in understudied areas that affect miner health and safety. We will also continue to urge investigators new to the study of mining to explore the opportunities presented by this foundation.

**Currently Funded Research Foci:**

Thus far, we are pleased that The Foundation awards are addressing a variety of understudied or unsolved areas important to the health and safety of miners in the US. Presently we are funding:

- **Safety:** Proposals that examine coal and rock burst potential, spontaneous combustion, through-the-earth communication and systems of integrated surface mining safety. Interventions under study include improved measurement of dust exposure and dust control.
- **Health:** For miner health, the focus is on whole body vibration, diseases of the lung and heart and improved use of existing systems to identify and alleviate adverse health in miners.

- **Safety and Health Management:** Attention to management of risks includes exploration of innovative risk management programs and assessment of effective hazard identification and control.
- **Training:** Preparing miners for maximum safety include research that considers both evaluation of effectiveness and exploration of new training methods.

## Administrative Progress

During this reporting period, the Foundation has finished development of its administrative procedures and we expect that operational efforts will continue in an effective, efficient and timely fashion.

- With the Foundation fully funded, our investment policy for the endowment has been implemented and is being continually monitored.
- The accounting system to track progress of the awarded projects, including payment and reporting deliverables appears to operate effectively.
- An online review process has been developed to improve access and efficiency for processing grant proposal assessments. This will be fully implemented for the third solicitation effort.

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. The Directors continue to be active in outreach activities in an effort to inform the community and the general public of its mission, goals and progress. To this end, a number of regional and national meetings have included presentations and discussions concerning the Foundation. Formal presentations made by the Foundation Directors will soon be available on the website.

Finally, the Directors are looking forward to the next six months, as the Foundation continues to pursue more awards in support of projects to improve the health and safety of the nation's miners.



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