



**PRESS RELEASE (February 26, 2020)
Rebuilding Their Future Foundation, Inc.
Formal Presentation by a Board Member**

On Wednesday, February 26, 2020, Board Member Steven A. Cotten made a formal presentation at the 2020 SME Annual Meeting in Phoenix Arizona. The title of his presentation was “Investigation of Improved Communication from Portable Refuge Alternatives to Facilitate Mine Escape and Rescue”. An abstract of Mr. Cotten’s presentation follows.

“This investigation explored and evaluated the feasibility of improved means for reliable emergency communication between occupants of an underground refuge alternative (chamber) with mine personnel on the surface and/or approaching rescue teams or, possibly, occupants of other nearby refuge alternatives located underground. The premise for the study was that modest modifications to both portable refuge alternative construction and commercially available mine radio communication system equipment might better permit occupants of a refuge alternative to share critical information such as their location, number, individual physical condition, refuge alternative status, and surrounding in-mine conditions to assist in coordinating their rescue or escape. Interoperability and potential use scenarios for three commercially available mine radio communication systems that operate in three widely different frequency bands (5 kHz, 450 KHz, and 900 MHz) was demonstrated in an operating underground coal mine. This project was conducted with funding provided by the Alpha Foundation for the Improvement of Mine Safety and Health, Inc.”

Work under this project was conducted by the Rebuilding Their Future Foundation (RTFF) under grant AFC719-57 from the Alpha Foundation for the Improvement of Mine Safety and Health. The Foundation was seeking proposals with a pro-active approach to empower the barricaded miner to more actively engage in the escape process. The 12-month grant responded to one the Alpha Foundation’s general topics of priority interest, “Improvement of Mine Rescue, Escape, and Training”. The funded investigation focused on the Alpha Foundation objective of “developing escape strategies and technologies to aid in escape including systems that provide for sheltering when escape is not immediately attainable” by specifically “using refuge alternatives as a base of operations”. The RTFF effort developed and demonstrated the feasibility of improved means for reliable emergency communication between occupants of an underground refuge alternative (chamber) with mine personnel on the surface and/or approaching rescue teams or occupants of other nearby refuge alternatives located underground (for more information please refer to Foundation Press Release dated 07/31/2018).