

# Zero Ground HFES(TM) Adds Mining Industry Approvals

May 1, 2008

Waukegan, IL - ZERO GROUND announced today that the ZERO-GROUND® High Frequency Extraction System (HFES(TM)), which significantly reduces high frequency ground currents, has been formally approved by the U.S. Dept. of Labor, Mining and Safety Health Administration (MSHA) for use in underground and surface mines located in the United States. ZERO GROUND has also been approved by the Bureau of Mine Safety, Commonwealth of PA, and has been issued a "P" number to be used in conjunction with the MSHA approval number for the ZERO GROUND® HFES(TM) solution.

The ZERO GROUND® HFES(TM) solution was engineered for use wherever AC Induction motors are operating in conjunction with Variable Frequency Drive (VFD) applications and for other applications where large switching power supplies are used. The design provides full benefits exceeding 500 ft. lengths. ZERO GROUND® HFES(TM) is a completely passive system which utilizes no filters or brushes.

Approved under the MSHA classification as "New Technology", the patented ZERO GROUND® HFES(TM) cable assembly and installation method, addresses existing safety concerns and unplanned downtime in mining applications associated with high frequency ground currents. In all VFD and Motor applications and those used specifically in the Mining Industry, the presence of high frequency ground currents can cause sparks, arcing and electrical shocks. High frequency ground currents have been known to affect sensitive electronic equipment such as environmental sensors used in Mine-Wide Monitoring Systems (MWMS). These systems may be compromised as a result of high frequency ground currents, causing safety concerns and eventual system malfunction.

Past testing by MSHA has verified that the ZERO GROUND® HFES(TM) solution reduces high frequency ground currents to levels acceptable to MSHA. Excerpts from an MSHA investigative report can be viewed at: [www.zero-ground.com/img/msha.pdf](http://www.zero-ground.com/img/msha.pdf).

The ZERO GROUND® HFES(TM) solution meets N.E.C. 250 grounding requirements.

## **About ZERO GROUND:**

The ZERO GROUND HFES solution has been applied in various applications successfully since 2000 in industries such as Energy, Industrial, Military, Agricultural and Medical. Customers with VFD/Motor applications can achieve operating cost improvements by proactively addressing issues that contribute to unplanned downtime.

ZERO GROUND® HFES(TM) eliminates electrical noise, extends motor life and increases system Mean Time Between Failure (MTBF), while directing high frequency ground currents away from hazardous locations and sensitive equipment.

For more information or to contact us please go to [www.zero-ground.com](http://www.zero-ground.com) or call 866-ZERO-GND Toll Free = 866-937-6463.