

MSHA Preliminary Cost Estimates
for
Guidance for Compliance with Post-Accident Two-Way Communications and
Electronic Tracking Requirements of the Mine Improvement and New
Emergency Response Act (MINER Act)
(December 10, 2008)

Preliminarily, MSHA estimates that initial costs to install an alternative wireless communication system (leaky feeder) and an electronic tracking system (radio frequency identification (RFID) system) would be approximately \$278 million for underground coal mines (\$157 million for the communication system and \$121 million for the tracking system). In addition, MSHA estimates that there would be annual costs of \$46 million for maintenance and extension of the systems as mining advances). These estimates are for approximately 624 underground coal mines, of which 223 mines have 1-19 employees; 391 mines have 20-500 employees; and 10 mines have 501+ employees.

With respect to the communication system installation cost of approximately \$157 million: \$33 million (or \$148,000 per mine) would be incurred by mines with 1-19 employees; \$106 million (or \$271,100 per mine) would be incurred by mines with 20-500 employees; and \$18 million (or \$1.8 million per mine) would be incurred by mines with 501+ employees. The estimated communication system costs per mine consist of: a three voice channel base unit, intrinsically safe amplifiers, intrinsically safe power supply that supports six amplifiers, barrier units for every six amplifiers, handheld radios, cable for 2 entries (primary and secondary escapeways), and labor to install equipment.

With respect to the tracking system installation cost of approximately \$121 million: \$17 million (or \$76,200 per mine) would be incurred by mines with 1-19 employees; \$95 million (or \$243,000 per mine) would be incurred by mines with 20-500 employees; and \$9 million (or \$900,000 per mine) would be incurred by mines with 501+ employees. The estimated tracking system costs per mine consist of: a mine server, workstation, software, cable for two entries (primary and secondary escapeways), hubs, intrinsically safe RFID readers, RFID personnel tags, and labor to install equipment.

Concerning the estimated annual maintenance and extension costs of \$46 million: \$2 million (or \$9,000 per mine) would be incurred by mines with 1-19 employees; \$37 million (or 94,600 per mine) would be incurred by mines with 20-500 employees; and \$7 million (or \$700,000 per mine) would be incurred by mines with 501+ employees.