Mine Rescue Communication Systems

I. General

The Department of Environmental Protection (DEP), Bureau of Mine Safety requires a supplier to provide Mine Rescue Communication Systems and accessories designed to support mine rescue operations. Mine Rescue Communication Systems and part numbers listed below are from Innovative Wireless Technologies, Inc. NO SUBSTITUTES allowed.

The SENTINEL Systems (part# FAP6210-255-SP1 and FAA9100-410-R1A) and shall be in accordance with the following:

- The system shall be used to train mine rescue personnel with the latest communications technology supporting mine rescue operations.
- The system will be fully functional and be capable to be deployed in actual mine rescue operations.
- Any equipment used specifically and only for training purposes shall be clearly and visibly marked.
- The system shall support communications redundancy, providing communications through wireless RF Transmission and fiber optic cables.
- The system shall also support transmission and display of gas detector data.
- The system shall support laptop computers for the display of information at multiple locations.
- Voice and gas sensor data must be able to continue to operate even if a break occurs in the wireless system or the fiber optic cables.
- The system must provide voice, texting, tracking and data capabilities from the advancing mine rescue team underground and for teams traveling in the mine, to the Fresh Air Base (FAB), to the Mine Rescue Team Truck (MRTT) and Command Center (CC) at the surface of the mine.
- The system shall support deployment in an ad hoc fashion. It will not require a deployment in a preconfigured layout or require contact with a server to configure the system.
- All communications devices shall be battery-operated.
- All communications from/to portable radios/handsets to/from infrastructure repeaters/mesh nodes and between infrastructure devices shall be wireless.
- Infrastructure devices will also support connectivity to fiber optic cable for the sake of communications redundancy.
- Any RF devices shall not require special licenses (e.g. FCC) for use above ground.
- All communications above ground or between above ground and below ground shall be hard-wired or, if RF transmissions, be encrypted. An encrypted wireless signal must meet minimum standards of Homeland Security, FIPS Publication 197.
- The system shall be able to configure devices remotely through wired and wireless means.
- The system shall be able to power down manually and remotely.
- The system shall be able to monitor and display its operation network performance, and battery levels for all battery-operated devices.
• The system must be fully interoperable and compatible with the MSHA mine rescue system in use at the Pittsburgh station.

The IWT SENTINEL Systems (part# FAP4215-050 and FAK4215-050) and shall be in accordance with the following:

• The system shall be battery-operated, rapidly deployable, highly scalable, mesh networked system that leverages the MSHA approved SENTINEL communication technology.
• The system shall be compatible with, and automatically connect to, all existing IWT communications installations.

II. Contract Requirements

A. Contractor shall complete Attachment A, Reciprocal Limitations, and electronically attach to the bid. Failure to do so may result in your bid being rejected.

B. Contractor shall comply with Attachment B, Federal Requirements.

C. Delivery Location: Bureau of Mine Safety, New Stanton Office, 131 Broadview Road, New Stanton, PA 15672.

D. All costs including shipping/handling shall be included in the contract unit price bid per item.

E. All deliveries shall be Freight On Board (FOB) destination. No additional costs shall be permitted.

III. Agency Contacts

Questions regarding the listed items shall be directed to Allison Gaida at 724-404-3147 or via email: agaida@pa.gov.

Questions regarding bidding procedures shall be directed to David Stillions at 717-772-5747 or via email: dstillions@pa.gov.

IV. Estimated Quantities

The quantities are estimated only and may increase or decrease depending of the needs of the department.

V. Award:

Award shall be to the lowest responsive and responsible bidder on the basis of the lowest total price submitted.

VI. Payment:

Payment shall be with the satisfactory receipt of items ordered and invoice submitted.