

## MINER Act Compliant Communication & Tracking Systems and Peripherals as of February 28, 2018

| <b><i>Communication System Peripherals</i></b>                             |  |  |                     |   |
|--|--|--|---------------------|---|
| <b>Manufacturer</b>  | <b>Model Number</b>                            | <b>Product Type</b>  | <b>Approval No.</b> | <b>RFI Minimum Separation Distance between blasting circuits, explosives and detonators<sup>1</sup></b> |
| Kenwood USA Corporation  | TK-290, TK-390                                 | VHF or UHF Portable Radio                                      | 23-A060002-0        | Not specified <sup>3</sup>  |
| NL Technologies  | Model GII                                      | Cap Lamp with Messenger Circuit                                | 23-ISA070004-0      | 1.2 feet (0.36 meters)  |
| Venture Design Services, Inc.  | Model TMLT Text Messaging Location Transponder | Tracking Tag and Text Messaging Device                         | 23-A080002-0        | 0 feet <sup>4</sup>   |
| Motorola   | HT750  | VHF or UHF Portable Radio                                      | 23-A080007-0        | 18 feet (Models AAH25RDC9AA3_N & AAH25SDC9AA3_N); and<br>27 feet (Model AAH25KDC9AA3_N)                 |
| SubterraCom Wireless Solutions, LLC  | Model 810T                                     | Wireless Tracking and Communication Device                     | 23-A080014-0        | Not specified <sup>3</sup>  |
| Hughes Supply Company  | HSC RDR_02                                     | Radio Repeater   | 23-A080019-0        | Not specified <sup>3</sup>  |
| L-3 Communications (Transferred to Innovative Wireless Technologies, Inc.) | ASM100001 Accolade                             | Mesh Radio Handset   | 23-A080020-0        | 5 feet <sup>5</sup>   |
| Mine Site Technologies   | ICCL   | Integrated Communications Cap Lamp with optional TAG5 tracker  | 23-ISA080001-0      | Not specified <sup>3</sup>  |
| Mine Site Technologies   | ICCL   | Integrated Communications Cap Lamp with optional T3100 tracker | 23-ISA080004-0      | Not specified <sup>3</sup>  |
| Active Control Technology, Inc. (Transferred to NL Technologies)           | Model 8035                                     | Telephone  | 23-A090008-0        | 8 feet <sup>5</sup>   |
| Matrix Design Group  | P/N: 2WC-T                                     | Two-way Text Communicator                                      | 23-A090007-0        | 0 feet <sup>4</sup>   |
| American Mine Research   | 6210   | Two-way Text Messenger   | 23-A090014-0        | 0 feet <sup>4</sup>   |
| Mine Site Technologies   | Model MP70 MinePhone                           | Intrinsically Safe Wi-Fi Handset                               | 23-A100006-0        | 14.8 inches (375 mm)  |

| <b>Communication System Peripherals</b>                                       |   |   |                     |  |
|---|---|---|---------------------|--|
| <b>Manufacturer</b>   | <b>Model Number</b>   | <b>Product Type</b>   | <b>Approval No.</b> | <b>RFI Minimum Separation Distance between blasting circuits, explosives and detonators<sup>1</sup></b>                                    |
| Becker Electronics Pty. Ltd   | UFMR-100 & VFMR-100   | UHF and VHF Portable Radios                                   | 23-A100010-0        | 6.7 feet (model UFMR-100);<br>and<br>32.8 feet (model VFMR-100)  |
| Argon ST, Inc.<br>(Transferred to Strata Safety Products, LLC)                | StrataCommTrac Model C202 or Model STC-MC-03 Miner Communicator | Text Messaging and Tracking Device                            | 23-A100012-0        | 40 inches (refer to approval marking for additional information)   |
| Matrix Design Group   | P/N: 2WC-HT   | Two-Way Communicator Handheld Tracker                         | 23-A100011-0        | 0 feet <sup>4</sup>  |
| NL Technologies   | Model Ranger Phone  | Wi-Fi Phone   | 23-A120002-0        | 15.5 inches  |
| L-3 Communications<br>(Transferred to Innovative Wireless Technologies, Inc.) | Miner Mesh Locator (MML)  | Tracking, Mesh Monitor and Emergency Status Indicating Device | 23-A120003-0        | 8.0 feet   |
| Innovative Wireless Technologies, Inc.  | Model SENTINEL Mesh Handset Permissible Portable Two-Way Radio  | Portable Two-Way Radio  | 23-A120005-0        | 3.3 feet   |
| Comtrol International   | Model CU1648  | Cross Band Coupler  | 23-A140003-0        | 32 feet  |
| American Mine Research  | Model E30 Mine Net Phone  | Wi-Fi Phone   | 23-A140008-0        | 14.4 inches (366 mm)   |
| ecom Instruments GmbH   | Model i.roc Ci70 -Ex  | Permissible Ruggedized Handheld Computer                      | 23-A150001-0        | 8 feet   |
| JVCKenwood USA Corporation  | NX-203 VHF, NX-303 UHF  | Portable Two-Way Radio  | 23-A150003-0        | 12 feet (Model NX-203 VHF, 1W);<br>27 feet (Model NX-203 VHF, 5W);<br>8 feet (Model NX-303 UHF, 1W); and<br>18 feet (Model NX-303 UHF, 5W) |

| <b>Communication System Peripherals</b> |                     |  |                     |   |
|---|---------------------|--|---------------------|---|
| <b>Manufacturer</b>                     | <b>Model Number</b> | <b>Product Type</b>  | <b>Approval No.</b> | <b>RFI Minimum Separation Distance between blasting circuits, explosives and detonators<sup>1</sup></b> |
| Strata Safety Products, LLC             | Model PAD02-CL      | Personnel Tracking Component of the Model PAD02-CL Integrated Alarm Device | 23-ISA160001-0      | 40 inches <sup>8</sup>  |

| <b>Leaky Feeder Communication Systems</b>  |   |                     |   |  |
|--|---|---------------------|---|--|
| <b>Manufacturer</b>  | <b>Model Number</b>   | <b>Approval No.</b> | <b>RFI Minimum Separation Distance between blasting circuits, explosives and detonators<sup>1</sup></b> |  |
| EI-Equip, Inc.<br>(Transferred to Pyott-Boone Electronics, Inc.)                                 | Model VHF-1 Radio System  | 9B-196-0            | Not specified <sup>3</sup>  |  |
| DAC  | Type RFM 2000 Radio System  | 9B-201-0, -1        | Not specified <sup>3</sup>  |  |
| Mine Radio Systems<br>(Transferred to Pyott-Boone Electronics, Inc.)                             | Flexcom Communications Systems  | 9B-219-0            | Not specified <sup>3</sup>  |  |
| Varis Mine Tech.   | Model IS and Model Smart Com 150IS Leaky Feeder Communication Systems | 23-A050001-0        | Not specified <sup>3</sup>  |  |
| Tunnel Radio of America  | Model UltraComm Distributed Antenna Communication System              | 23-A070005-0        | 20 feet <sup>5</sup>  |  |
| Becker Electronics (PTY) LTD   | Becker Leaky Feeder System  | 23-A080003-0        | 0 feet <sup>4</sup>   |  |
| Minecom a division of TR Corporation Pty. Ltd.<br>(Transferred to Pyott-Boone Electronics, Inc.) | MCA 2000 UHF Leaky Feeder System                                      | 23-A090001-0        | 8 feet  |  |
| Minecom a division of TR Corporation Pty. Ltd.<br>(Transferred to Pyott-Boone Electronics, Inc.) | MCA 1000 VHF Leaky Feeder System                                      | 23-A090003-0        | 8 feet  |  |

| <b>Leaky Feeder Communication Systems</b>                            |  |                     |  |  |
|--|--|---------------------|--|--|
| <b>Manufacturer</b>  | <b>Model Number</b>  | <b>Approval No.</b> | <b>RFI Minimum Separation Distance between blasting circuits, explosives and detonators<sup>1</sup></b>  |  |
| Kutta Radios, Inc.   | DRUM 100S UHF/VHF Communication System                       | 23-A110004-0        | 8 feet (Model 100S-U/VXXXX-U1000);<br>12 feet (Model 100S-U/VXXXX-V1000); and<br>0 feet (Models 100S-U/VXXXX-U/V0040 and 100S-U/VXXXX-U/V0020) |  |
| Mine Radio Systems<br>(Transferred to Pyott-Boone Electronics, Inc.) | Model Multicom Permissible Leaky Feeder Communication System | 23-A120004-0        | 12 feet  |  |

| <b>Tracking Systems and Devices</b>                                  |                                      |                            |                     |   |
|--|--------------------------------------|----------------------------|---------------------|---|
| <b>Manufacturer</b>  | <b>Model Number</b>                  | <b>Product Type</b>        | <b>Approval No.</b> | <b>RFI Minimum Separation Distance between blasting circuits, explosives and detonators<sup>1</sup></b> |
| Mine Site Technologies   | Model TAG IV Transmitter             | Tracking Tag               | 2G-4162-0           | Not specified <sup>3</sup>  |
| Marco  | Model PRIM Model PTT-1               | Tracking Tag               | 23-A060001-0        | Not specified <sup>3</sup>  |
| Matrix Design Group, LLC   | Model MatrixTracker T1000 RFID Tag   | Tracking Tag               | 23-A060003-0        | 0 feet <sup>4</sup>   |
| NL Technologies  | Model Standalone WiFi RFID Tag       | Tracking Tag               | 23-A070001-0        | Not specified <sup>3</sup>  |
| Venture Design Services  | MLT Mobile Location Transponder Tags | Tracking Tag               | 23-A070003-0        | 0 feet <sup>4</sup>   |
| Wholesale Mine Supply  | Model i-Q8X RFID Tag                 | Tracking Tag               | 23-A070004-0        | Not specified <sup>3</sup>  |
| Mine Radio Systems<br>(Transferred to Pyott-Boone Electronics, Inc.) | Model TP2/ISPT                       | Tracking Tag               | 23-A070006-0        | Not specified <sup>3</sup>  |
| American Mine Research, Inc.   | Model Mine Net Tag                   | Tracking Tag               | 23-A070007-0        | 0 feet <sup>4</sup>   |
| NL Technologies  | Model GII                            | Cap Lamp with Tracking Tag | 23-ISA070001-0      | Not specified <sup>3</sup>  |

| <b>Tracking Systems and Devices</b>   |  |                     |                     |  |
|---|--|---------------------|---------------------|--|
| <b>Manufacturer</b>   | <b>Model Number</b>  | <b>Product Type</b> | <b>Approval No.</b> | <b>RFI Minimum Separation Distance between blasting circuits, explosives and detonators<sup>1</sup></b>        |
| Koehler-Bright Star   | Model TAG5 Tracker Tag Module  | Tracking Tag        | 23-ISA070002-0      | Not specified <sup>3</sup>   |
| Koehler-Bright Star   | Model MultiTAG TP1 Transmitter TAG PCB Assembly                          | Tracking Tag        | 23-ISA070003-0      | Not specified <sup>3</sup>   |
| Pyott-Boone Electronics, Inc.   | Model 1980 Tracking Tag  | Tracking Tag        | 23-A080004-0        | 8 feet <sup>5</sup>  |
| Tunnel Radio of America   | Model MineAx T1 RFID Tracking Tag  | Tracking Tag        | 23-A080005-0        | 0.5 feet <sup>5</sup>  |
| Extronics Ltd.  | Model iTAG100/BWH3000/iTAG100-M/iTAG100-M-CB/TAG2000-X4/TAG2000-C-X4 Tag | Tracking Tag        | 23-A080006-0        | 8 feet <sup>5</sup> (iTAG100/BWH3000); and<br>14.76 inches (iTAG100-M, iTAG100-M-CB, TAG2000-X4, TAG2000-C-X4) |
| Conspec Controls  | 911152 Personnel Tracking Transmitter                                    | Tracking Tag        | 23-A080011-0        | 0 feet <sup>4</sup>  |
| Mine Site Technologies  | T3i-SC RFID  | Tracking Tag        | 23-A080012-0        | 15 inches  |
| Active Control Technology, Inc.<br>(Transferred to NL Technologies)           | ActiveMine Ekahau T301   | Tracking Tag        | 23-A080017-0        | Not specified <sup>3</sup>   |
| Wavetrend Technologies, Inc.  | Wavetrend Technologies, Inc.   | Tracking Tag        | 23-A080018-0        | Not specified <sup>3</sup>   |
| Becker Electronics  | BEC004   | Vehicle Mounted Tag | 23-A090004-0        | 0 feet <sup>4</sup>  |
| Becker Electronics  | BEC003   | Helmet Mounted Tag  | 23-A090006-0        | 0 feet <sup>4</sup>  |
| L-3 Communications<br>(Transferred to Innovative Wireless Technologies, Inc.) | Model TTURT-01 Tru-Tracker UWB   | Tracking Tag        | 23-A090009-0        | 0 feet <sup>4</sup>  |

| <b>Tracking Systems and Devices</b>   |  |   |                     |  |
|---|--|---|---------------------|--|
| <b>Manufacturer</b>   | <b>Model Number</b>                    | <b>Product Type</b>                               | <b>Approval No.</b> | <b>RFI Minimum Separation Distance between blasting circuits, explosives and detonators<sup>1</sup></b>  |
| Pyott-Boone Electronics, Inc.   | Tracker Boss                           | Tracking System                                   | 23-A090011-0        | 5 feet or 18 feet (Tag Reader Models 1981 & 1984) <sup>6</sup> ;<br>5 feet or 27 feet (Tag Reader Models 1982 & 1985) <sup>6</sup> ; and<br>8 feet (Node Models 1990 & 1990-E) |
| Becker Electronics  | BEC002                                 | Cap Lamp Tag                                      | 23-ISA090001-0      | 0 feet <sup>4</sup>  |
| Koehler-Bright Star   | Model TAG 3100                         | Tracking Tag                                      | 23-ISA090003-0      | 15 inches  |
| L-3 Communications<br>(Transferred to Innovative Wireless Technologies, Inc.) | Model TTTR-01 Tru-Tracker Tag Reader   | Reverse RFID tracking with UWB over a LF backbone | 23-A090017-0        | 46 inches  |
| L-3 Communications<br>(Transferred to Innovative Wireless Technologies, Inc.) | ACCOLADE                               | Tracking Beacon                                   | 23-A090015-0        | 1.7 feet   |
| Tunnel Radio  | Model TR-MX-332 MineAx Tracking System | RFID Tracking System                              | 23-A100002-0        | 12 feet  |
| Becker Electronics  | TCT1 4XX                               | Cap Lamp Tag                                      | 23-ISA100002-0      | 0 feet <sup>4</sup>  |
| Becker Electronics  | TCT0 234 and TCT0 334                  | Cap Lamp Tags                                     | 23-ISA100001-0      | 0 feet <sup>4</sup>  |
| NL Technologies   | Model GII                              | Cap Lamp with Reverse Tracking Circuit            | 23-ISA110001-0      | 1.2 feet (0.36 meters)   |

| <b><i>Tracking Systems and Devices</i></b> |   |                     |                     |   |
|--|---|---------------------|---------------------|---|
| <b>Manufacturer</b>                        | <b>Model Number</b>                                     | <b>Product Type</b> | <b>Approval No.</b> | <b>RFI Minimum Separation Distance between blasting circuits, explosives and detonators<sup>1</sup></b> |
| Innovative Wireless Technologies, Inc.     | Model SENTINEL Beacon                                   | Tracking Beacon     | 23-A120001-0        | 3.3 feet  |
| Pyott-Boone Electronics, Inc.              | Model 911 Emergency Communicator                        | Tracking Tag        | 23-A120007-0        | 15 feet   |
| American Mine Research, Inc.               | Model WiFi Tag  | Tracking Tag        | 23-A140006-0        | 14.4 inches (370 mm)  |
| American Mine Research, Inc.               | Model MN-6420   | WiFi Beacon Module  | 23-A160003-0        | 14.4 inches (370 mm)  |
| Pyott-Boone Electronics, Inc.              | Model PT-TAG(915) w/o GPS<br>Model PT-TAG-GR(915) w/GPS | Tracking Tag        | 23-A170001-0        | 8 feet  |
| Strata Safety Products, LLC                | Model SCT-TAG-03  | Tracking Tag        | 23-A170003-0        | 40 inches   |
| Innovative Wireless Technologies, Inc.     | Model SENTINEL Tracking Tag                             | Tracking Tag        | 23-A170004-0        | 3.3 feet  |

| <b><i>Fixed Node-Based Communications and/or Tracking Systems<sup>7</sup></i></b> |   |  |                     |   |
|---|---|--|---------------------|---|
| <b>Manufacturer</b>   | <b>Model Number</b>                       | <b>Product Type</b>                                  | <b>Approval No.</b> | <b>RFI Minimum Separation Distance between blasting circuits, explosives and detonators<sup>1</sup></b> |
| NL Technologies   | Digital Communications System             | IEEE 802.11 mesh network over fiber System           | 23-A080010-0        | 1.1 feet <sup>5</sup>   |
| Matrix Design Group, LLC  | MDG METS 2.1                              | RFID Miner Tracking and Text Messaging System        | 23-A080013-0        | 0 feet <sup>4</sup>   |
| American Mine Research, Inc.  | MN-6000 Mine Net System                   | RFID Miner Tracking and Text Messaging System        | 23-A090013-0        | 0 feet <sup>4</sup>   |
| American Mine Research, Inc.  | MN-6215 Dual Channel Wireless Transceiver | Wireless Transceiver for use with the MN-6000 System | 23-A100001-0        | 0 feet <sup>4</sup>   |

| <b><i>Fixed Node-Based Communications and/or Tracking Systems<sup>7</sup></i></b> |                               |   |                     |   |
|---|-------------------------------|---|---------------------|---|
| <b>Manufacturer</b>   | <b>Model Number</b>           | <b>Product Type</b>   | <b>Approval No.</b> | <b>RFI Minimum Separation Distance between blasting circuits, explosives and detonators<sup>1</sup></b> |
| Mine Site Technologies  | IMPACT                        | IS Communications System  | 23-A100003-0        | 14.8 inches (375 mm)  |
| NL Technologies   | Portable Access Node          | IEEE 802.11 mesh network over fiber System for use with Digital Communications System | 23-A100004-0        | 14.2 inches (360 mm)  |
| InSet Systems, LLC  | 10000000AA-00                 | Tracking and Communication System   | 23-A110001-0        | 8 feet  |
| Conspec Controls  | System Configuration Tracking | Tracking System   | 23-A160004-0        | 0 feet <sup>4</sup>   |

| <b><i>Wireless Node-Based Communications and/or Tracking Systems<sup>7</sup></i></b> |   |   |                     |  |
|--|---|---|---------------------|--|
| <b>Manufacturer</b>  | <b>Model Number</b>                         | <b>Product Type</b>   | <b>Approval No.</b> | <b>RFI Minimum Separation Distance between blasting circuits, explosives and detonators<sup>1</sup></b>  |
| Venture Design Services, Inc.  | MineTracer Miner Location Monitoring System | IEEE 802.15.4 Text Messaging and Tracking System                                  | 23-A080001-0        | 5 feet   |
| Venture Design Services, Inc.  | PWAP  | Battery powered WAP for use with IEEE 802.15.4 Text Messaging and Tracking System | 23-A080001-0        | 5 feet   |
| L-3 Communications (Transferred to Innovative Wireless Technologies, Inc.)           | ACCOLADE                                    | Wireless Mesh Communication and Tracking System                                   | 23-A080015-0        | 7 feet (900 MHz antennas); and<br>18.5 feet (450MHz antennas)  |
| Innovative Wireless Technologies, Inc.   | Fixed Mesh Node, with Antenna & Battery     | Fixed Mesh Node   | 23-ISA080005-0      | 18.5 feet <sup>5</sup> (400MHz antenna);<br>2.5 feet <sup>3</sup> (900MHz pulse antenna); and<br>7.5 <sup>3</sup> feet (original 900MHz antenna) |
| Innovative Wireless Technologies Inc.  | SENTINEL                                    | Wireless Mesh Communication System  | 23-A080016-0        | 7 feet   |
| Active Control Technology, Inc. (Transferred to NL Technologies)                     | ActiveMine AM1000                           | Wireless Mesh Communication System  | 23-A090002-0        | 18 feet  |



| <b>Wireless Node-Based Communications and/or Tracking Systems<sup>7</sup></b> |  |  |                     |   |
|---|--|--|---------------------|---|
| <b>Manufacturer</b>   | <b>Model Number</b>  | <b>Product Type</b>  | <b>Approval No.</b> | <b>RFI Minimum Separation Distance between blasting circuits, explosives and detonators<sup>1</sup></b> |
| Active Control Technology, Inc. (Transferred to NL Technologies)              | ActiveMine AM2000  | Battery Powered Node for use with the Wireless Mesh Communication System | 23-A090002-0        | 18 feet   |
| Rajant Corporation  | WE-IS UX-2400  | Breadcrumb® Portable Wireless Mesh Network Nodes                         | 23-A090012-0        | 3.3 feet  |
| Argon ST, Inc. (Transferred to Strata Safety Products, LLC)                   | StrataCommTrac Model C201 & Model SCT-CN-03 Subsurface Communication Nodes | Wireless Mesh Communication System                                       | 23-A100008-0        | 40 inches (refer to approval marking for additional information)  |
| Newtrax Technologies Inc.   | Network Infrastructure Device  | Battery Powered Wireless Node  | 23-A110005-0        | 0 feet <sup>4</sup>   |
| Innovative Wireless Technologies, Inc.  | Portable Mesh Node (PMN)   | Battery Powered Wireless Node  | 23-A120008-0        | 7.1 feet  |
| Immersive Technologies, LLC   | WFP0200830   | ZAP Wireless Zone Access Point   | 23-A120006-0        | 8 feet  |
| American Mine Research, Inc.  | MN-6400 Mine Net Mesh System   | Battery Powered Wireless Mesh Communication System                       | 23-A140005-0        | 25 feet (2.4GHz antenna)  |
| Innovative Wireless Technologies Inc.   | SENTINEL Wireless Repeater Node  | Battery Powered Wireless Node  | 23-A170002-0        | 3.3 feet  |
| Mine Site Technologies  | Model WRN  | Wireless Repeater Node   | 23-A180001-0        | 15 inches   |

| <b>Medium Frequency Systems</b> |  |                     |   |  |
|---------------------------------|--|---------------------|---|--|
| <b>Manufacturer</b>             | <b>Model Number</b>                        | <b>Approval No.</b> | <b>RFI Minimum Separation Distance between blasting circuits, explosives and detonators<sup>1</sup></b> |  |
| Kutta Radios, Inc.              | DRUM 100R                                  | 23-A090010-0        | 32 feet <sup>9</sup>  |  |
| Kutta Radios, Inc.              | DRUM 100P Portable Medium Frequency Radio  | 23-A100009-0        | 6.6 feet (2 meters)   |  |
| Kutta Radios, Inc.              | DRUM 100CP Portable Medium Frequency Radio | 23-A100009-0        | 6.6 feet (2 meters)   |  |
| Kutta Radios, Inc.              | DRUM TTR-100 Tracking Tag Receiver         | 23-A110003-0        | 0 feet <sup>4</sup>   |  |

| <b><i>Through-The-Earth (TTE) Systems</i></b> |                            |   |                     |   |
|---|----------------------------|---|---------------------|---|
| <b>Manufacturer</b>                           | <b>Model Number</b>        | <b>Product Type</b>                               | <b>Approval No.</b> | <b>RFI Minimum Separation Distance between blasting circuits, explosives and detonators<sup>1</sup></b> |
| Lockheed Martin Corporation                   | Model No. 03538-MCS-UP-001 | MagneLink Magnetic Communication System (MCS)     | 23-A110002-0        | 10.5 feet   |
| E-Spectrum Technologies Inc.                  | Rescue Dog                 | Through The Earth Communication System            | 23-A140001-0        | 50 feet   |
| Vital Alert Communication, Inc.               | C1000-IS                   | Through-The-Earth Radio                           | 23-A140007-0        | 20 feet   |
| Strata Products Worldwide, LLC                | Model STE1000              | Subsurface Through-The-Earth Communication System | 23-A160001-0        | 40 inches   |

Note 1 – The minimum safe distance is for only one device. The combined effect of multiple RF devices must be taken into account by mine operators and documented in the Emergency Response Plan (ref. MSHA Program Policy Letter P11-V-07). Refer to manufacturer recommendations and related product conditions of use for more information.

Note 2 – This device only receives RF signals, and therefore minimum safe distances around it are not applicable. The surface antenna loop and its hazards associated with blasting circuits were not evaluated.

Note 3 – A minimum separation distance was not specified by the applicant during the MSHA approval process for this device. An approval holder should submit a Revised Approval and Modification Program (RAMP) application to modify the approval to add a minimum separation distance.

Note 4 – Any device with a minimum separation distance of 0 feet is not required to be labeled as such on the MSHA approval plate.

Note 5 – These devices have a minimum separation distance that was verified by MSHA, however, this distance may not be included on the MSHA approval plate. An approval holder may submit a RAMP application to modify the approval to add the minimum separation distance.

Note 6 – Refer to Approval Label for appropriate distance.

Note 7 – A fixed node-based system includes node to node communication signal cable while a wireless node-based system does not.

Note 8 – Personnel Tracking Component Intrinsic Safety Evaluation No. 23-ISA160001-0 is part of the Model PAD02-CL Integrated Alarm Device Approval No. 18-A160001-0. The minimum separation distance between blasting circuits, explosives and detonators is listed on the Model PAD02-CL approval label.

Note 9 – Other distances may apply. Refer to the conditions of use for the approval.