



December 23, 2016

Approval No. 22-A160001-0  
A&CC PAR No. 103648

Mine Safety Appliance Company  
Attention: Steve Kancel  
1000 Cranberry Woods Drive  
Cranberry Township, Pennsylvania 16066

Dear Mr. Kancel:

The review of your application dated June 27, 2013, your assigned Code No. 490553, requesting approval of the Model Altair 5X and Altair 5X IR Multi-Gas Detectors, is complete.

The design of these Model Altair 5X and Altair 5X IR Multi-Gas Detectors meets the requirements of Title 30 Code of Federal Regulations, Part 22 and is approved as permissible for use in gassy underground mines. We assign Approval No. 22-A160001-0 to the Model Altair 5X and Altair 5X IR Multi-Gas Detectors.

The following apply to Approval No. 22-A160001-0:

1. You must build each Model Altair 5X and Altair 5X IR Multi-Gas Detector bearing this approval number according to the drawings and specifications on file at our Center. Enclosed is a list of these drawings and specifications.
2. Our approval label information must be legibly reproduced with permanent lettering on a wear resistant material and must be prominently displayed on an exterior surface of the Model Altair 5X and Altair 5X IR Multi-Gas Detectors (see the enclosed official approval label information required for these units). All of the approval label information must appear on the approval label.
3. You are not permitted to make changes to the design of these multi-gas monitors without our approval.
4. We may require you to make changes to the design, or to modify the Model Altair 5X and Altair 5X IR Multi-Gas Detectors in the field, in the interest of safety.
5. We have the right to revoke this approval, for cause, at any time.

6. You must provide, to the user, a copy of the Instruction Manual, Document No. 10150945 with each Model Altair 5X and Altair 5X IR Multi-Gas Detector.
7. The following requirements apply to the use of the Model Altair 5X and Altair 5X IR Multi-Gas Detectors:
  - a) MSHA approved for use with the following batteries:
    - Sanyo UF103450PN battery. The battery is not user-replaceable. Charge in above ground locations only.
    - Alkaline battery pack consisting of 3 AA Eveready E91 or Duracell MN1500 battery cells. Do not mix cell types. Replace all cells at the same time in a fresh air location.
  - b) For compliance determinations required by 30 CFR Part 75, Subpart "D", the Altair 5X and Altair 5X IR Multi-Gas Detectors must display methane in the percent-by-volume (0-5%) mode.
  - c) The Altair 5X and Altair 5X IR Multi-Gas Detectors are to be calibrated according to the procedures in the instruction manual, Document No. 10150945.

You will receive an invoice for the cost to process your application.

If you have any comments or questions relative to this letter, please contact Gail L. Nicola at 304-547-2010 or by email at [Nicola.Gail@dol.gov](mailto:Nicola.Gail@dol.gov).

Sincerely,



Dennis L. Ferlich  
Chief, Approval and Certification Center

Enclosures