



# Washington Laboratories, Ltd.

7560 LINDBERGH DRIVE  
GAITHERSBURG, MD 20879  
(301) 417 – 0220 FAX # (301) 417 - 9069

October 24, 2007

Mr. Richard Fabina  
American Telecommunications Certification Body Inc.  
6731 Whittier Ave  
McLean, VA 22101

RE: Comments of September 26, 2007  
APPLICATION: P9R-10083876 (originally uploaded as P9R-10058545) for Mine Safety Appliances Co.

**PLEASE SEE QUESTION 5 AND RESPONSE. PLEASE REVISE APPLICATION AND LISTING ACCORDINGLY**

Dear Mr. Fabina:

Below are the comments that you have provided regarding the application for certification referenced above. Our responses to those comments are in ***bold italic***. Many responses refer you to additional exhibit(s) which has been uploaded to the application folder at the ATCB website.

Thank you for your attention. Please feel free to contact us for any additional information that you may require.

Regards,

*Steven D. Koster*  
EMC Operations Manager

*Brian J. Dettling*  
Documentation Specialist

WLL Project: 9849

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1) Provide AC line conducted test data in accordance with the last sentence of Section 15.207(c) of the FCC Rules. No AC line conducted test data was provided. Be sure to measure both power sources (the USB connection and the supplemental AC adapter) for compliance.

***R. Conducted emissions data has been provided in the revised test report. Please see “1003876 Test Report”.***

2) Power spectral density measurements on two channels did not follow the measurement Procedure in KDB Publication 558074. This document requires the sweep time to be equal to the span divided by 3 KHz. Since the span was 1.5 MHz, the sweep time must be 500 seconds not 100 seconds. Please measure power spectral density on the high and middle channel in accordance with the referenced procedure.

***R. The indicated sweep times have been corrected in the revised test report. The HPVVEE program used to collect the PSD data scans the 1.5MHz span in 5 equal scans, each taking 100 seconds and then appends the data so it is all on one plot. This allows for the proper sweep time to be utilized for the sweep, but it only shows the information from the last sweep taken. This is typically corrected prior to the report release.***

3) Tables 8, 9 and 10 of radiated emission measurements above 1 GHz have a column labeled SA Level but this column incorrectly lists QP (quasi-peak) levels for this column. Please correct this error. Additionally the last column in these Tables labeled Notes has the letters PK and AVE followed by the letters AMB. Assuming the letters AMB mean ambient, why did you report these levels? Or are the letters AMB an error in this column?

***R. Reporting ambient levels provides evidence that a complete evaluation of the emissions was performed. Precedent from ATCB reviewers has indicated that this is desirable and acceptable.***

4) Please provide a better operational description of this transmitter by answering the following questions in the operational description. Is this transmitter a frequency hopper or a digital transmission system? How many channels does it use and what are their frequencies? What type of modulation does it use and what are the data rates? In particular, a spread spectrum reader cannot transmit a CW signal only. It must be an information bearing system as defined in Section 2.1 of the FCC Rules.

***R. Please see “10083876 Operational Description”.***

5. Provide a new FCC ID label exhibit. The labels provided have the wrong FCC ID numbers on them.

***R. The manufacturer states that the number on the label is correct as shown. Other supporting documentation provided was in error. Please see revised 731 form “10083876 Application Form - 731 revised” and supporting letters. The revised test report also reflects the changed ID.***

6. Provide photos of the top and bottom of the small board attached to the top of the reader/ID tag writer board. I believe this may be the antenna board.

***R. The manufacturer states that this photo was provided inadvertently. A replacement photo without the board in question has been provided – this is the correct configuration of the device. Please see “Tag Internal Photos revised”.***

7. The city location for Mine Safety Appliance Co. (MSA) shown on the FCC application form does not match the city location in the FCC database. Pittsburgh is listed as the city location for MSA not Cranberry Township. Please either correct the FCC application form or contact Ms. Marianne Bosley by email at [Marianne@atcb.com](mailto:Marianne@atcb.com) for help in changing the FCC database.

***R. Please see exhibits “Letter of Agency 19Oct07”, “Letter of Confidentiality 19Oct07”, and “Authority to Act as Agent – FCC”.***

8. The address shown on the confidentiality letter and agent letter does not match the address for MSA given in the FCC database or on the FCC application form. Please either provide new letters with the address of record shown on them or provide a letter authorizing the individual at this address shown on these letters to sign them for MSA.

***R. Please see new letters as above.***

9) For your information – For antenna conducted emissions, the level of the fundamental emission on the middle channel were not made with the 100 KHz resolution bandwidth required by the FCC Rules. A RBW of 3 MHz was used for this measurement. Use of a larger bandwidth than 100 KHz artificially increases the fundamental level and the compliance level of any signals measured with a 100 KHz bandwidth. Since the antenna conducted measurements on the low and high channels were done correctly, I will not require you to remeasure the levels on this channel. Please make sure to follow the correct measurement procedure on all measurements. I have attached a copy of KDB 558074 for your convenience.

***R. Noted.***