



## SPERIAN PROTECTION INSTRUMENTATION

### USER SAFETY ADVISORY

20 AUG 2007

#### **To: ALL USERS OF BIOSYSTEMS PORTABLE GAS DETECTION PRODUCTS CONTAINING CO SENSORS:**

The purpose of this notice is to advise Biosystems customers that we have identified an issue with the long-term functionality of the carbon monoxide (CO) sensors that Biosystems previously used in many of our portable gas detectors. A small number of CO sensors have exhibited an accelerated loss of sensitivity that may lead to end of life prior to the warranty date. The incidence of this problem is believed to be fewer than 1 in 500 sensors. To date, the few sensors that have been identified with this issue were manufactured between March, 2006 and December, 2006.

Sperian Instrumentation is providing this notice to ensure that our customers are informed of this situation and will take the appropriate steps for continued worker safety.

Based on the available data, the nature of the failure is such that it occurs when the sensor has already been in the field for a minimum of several months. Fortunately, the nature of this failure is such that the sensor exhibits a systematic loss of sensitivity over a length of time that allows it to be detected by standard sensor verification practices prior to outright sensor failure.

The root cause of the sensor problem has been identified and Sperian Instrumentation has taken steps to eliminate this issue from present and future shipments. Sensors shipped from August 16, 2007 onwards are no longer at risk for this type of failure.

#### **THE IMPORTANCE OF DAILY ACCURACY CHECKS**

Every toxic sensor loses sensitivity over time, and occasionally sensors fail outright prior to the end of the sensor warranty period. Regular verification of sensor accuracy is paramount to worker safety when using any type of gas detection equipment. Sperian Instrumentation recommends following the ISEA guideline concerning daily verification of sensor accuracy. According to the OSHA website at <http://www.osha.gov/dts/shib/shib050404.html> :

“The International Safety Equipment Association (ISEA), founded in 1933, is a trade association for manufacturers of protective equipment, including environmental monitoring instruments. **The ISEA recommends, at a minimum, verification of sensor accuracy before each day’s use.**

The only way to guarantee that an instrument will detect gas accurately and reliably is to test it with a known concentration of gas. Exposing the instrument to a known concentration of test gas will show whether the sensors respond accurately and whether the instrument alarms function properly.”

Daily verification is the surest way to discover a problematic sensor before the sensor fails prematurely. Since the CO sensor failure described above is systematic and prolonged, daily accuracy checks will uncover the prematurely failing CO sensor well before the sensor fails to detect CO.

## **SCOPE**

The following instruments may include the CO sensor in question:

- ToxiPro, ToxiLTD and Toxi3LTD CO instruments
- MultiVision instruments equipped with a CO sensor
- MultiPro, PhD5, PhD Lite and Cannonball 3 instruments equipped with a CO sensor that is not part of a Duo-Tox sensor\*

**\*Note that the CO side of the Duo-Tox sensor is not in question.**

## **COURSE OF ACTION**

Sperian Instrumentation will replace any CO sensor free of charge from any of the above instruments that fails to calibrate due to loss of sensitivity while the sensor is covered by the Sperian Instrumentation Standard Warranty. As is the case with any warranty sensor, the sensor will need to be returned to Sperian Instrumentation for testing and analysis as soon as possible.

If you have any questions concerning this notice, please contact our Technical Service Department at:

800 711-6776

860 344-1079

<mailto:techserv@biosystems.com>

Sincerely,

A handwritten signature in black ink, appearing to read "Dave MacDonald". The signature is fluid and cursive, with the first name "Dave" being more prominent and the last name "MacDonald" following in a similar style.

Dave MacDonald

Quality Assurance Manager