

# the Case Study

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Keeping you up-to-date with the world of **noise measurement** 

## doseBadge<sup>®</sup> proves no problem for Patterson Pumps

A chance introduction to Cirrus Research at a US Health & Safety Conference proved to be very fortunate timing for Greg Dobson.

Greg is the Environmental and Safety Manager for the Patterson Pump Company, one of the world's leading suppliers of quality pumps for sectors including: flood control, industrial, fire, municipal and HVAC.

He explains in his own words: "While attending the Georgia Health, Safety and Environmental Conference, an exhibitor introduced me to the wireless doseBadge®. Quite frankly, I was in the market to replace our outdated dosimeter and didn't want to deal with untangling wires and having to use screwdrivers to remove reader covers to examine the test results."

Greg went on to buy two doseBadges® and a reader unit so he could download test data direct to his computer.

But the doseBadge<sup>®</sup> really proved its usefulness when Greg heard that the company's Hearing Protection Programme had picked up an employee who had experienced a 'threshold shift' in their hearing compared to his baseline hearing test.

The doseBadge<sup>®</sup>. is wireless. virtually indestructible and so easy to use.









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A Standard Threshold Shift, or STS, is defined in OSHA's occupational noise exposure standard at 29 CFR 1910.95(g)(10)(i) as a change in hearing threshold (relative to the baseline audiogram for that employee) of an average of 10 decibels (dB) or more, at specific frequencies, in one or both ears.

Greg immediately conducted a dosimeter test of the employee using the doseBadge®.

"Having past experience with other 'belt-clip' dosimeters, I always look forward to conducting these tests now." he said. "With the doseBadge®, it is wireless, virtually indestructible and so easy to use. Once the tests were completed I inserted the doseBadge® into the reader and pressed the 'Read' button. You can't get much simpler than that!"

#### Identifying the cause

The test revealed the noise level in the employee's work environment was at a level which indicated the cause of his hearing loss was coming from somewhere outside of work.

"We immediately began investigating the cause of the employee's hearing loss and found the employee was participating in several activities outside of work which generated high noise levels and in addition found the employee was taking medication which is known to cause hearing loss over time. All this information was forwarded to an audiologist and the final outcome of the investigation was determined to be 'non-work related'.

In short, audiograms determine hearing loss but give no data to determine the cause of that hearing loss."

By thoroughly investigating the possible causes, Greg was able to determine if a standard threshold shift was work related or not, and the first step was to conduct a time-weighted average of the work environment – exactly what the doseBadge® is designed to do.

The functionality options the reader unit provides and its ability to produce detailed reports is second-to-none.

"The functionality options the reader unit provides and its ability to produce detailed reports is second-to-none", concluded Greg. "Don't wait until you find you have an employee suffering from hearing loss. Make certain your employees are following established hearing protection policies, do annual audiograms to monitor your employees hearing, thoroughly investigate any hearing losses, and use equipment that will give you the data you need to effectively determine where the problem is NOT coming from."

"I highly recommend the Cirrus doseBadge®."

Greg Dobson COHC Environmental and Safety Manager Patterson Pump Company

#### **Cirrus Products used** in this case study

doseBadge<sup>®</sup> Noise Dosemeter

#### About Cirrus Research

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