ISRP 2002 abstract

Presenter/author	Title	Abstract
Kranenburg, Sanya *The S.E.A. Group, Sydney, Australia*	**Wear Time and Peak Airflow Monitoring in a Lead Smelter**	This paper covers a survey conducted over a period of six months at an Australian lead smelter experiencing high lead levels in the blood of employees. During the project we measured: • respirator wear time and • airflow through the respirator during various work routines. Respirator wear time was established for each person over the 6 months. This was then compared with lead blood levels. We found that there was clearly a link between the wear time of a Fan supplied Positive pressure Breath responsive Respirator (FPBR) and reduced lead levels. To measure airflow we used an Extended Data Logger (EDL) that records the volume and speed of every breath. The information was processed by software that plots the raw real-time breathing data on a graph. The software can also calculate the volume of air drawn through the filters that would have been outside the capacity of a conventional PAPR (had such a device been used). This shortfall must be compensated for; often by inward leakage. During certain work, the overrun was alarmingly high, perhaps explaining the common practice among PAPR-wearers of switching to negative pressure respirators when lead levels in their blood get too high.