

ISRP 1999 abstract

Presenter/author	Title	Abstract
Bancroft, Barrie <i>Health and Safety Laboratory Broad Lane Sheffield S37HQ UK</i>	Dead Space Measurement in RPE- European Test House Results, Problems and Solutions	<p>Respiratory protective equipment (RPE) from sources throughout the world is now in use in Europe because it has undergone a certification procedure and hence carries the “CE” mark. Part of this process can involve passing tests in harmonized European standards. It is thus important that the standards are written in an unambiguous manner and that test houses can carry out tests to give reproducible results both on an inter-, and intra-laboratory basis.</p> <p>One method of assessing this reproducibility is to carry out inter-laboratory trials (termed “round robin” testing) doing a specific test on the same example of RPE. This can throw light on both the different interpretations of the test procedure and the methodology used by test houses. It is also useful for laboratories who are newly on-stream and are on a learning curve with some test procedures.</p> <p>The presentation describes such a round robin test, primarily concerned with the measurement of rebreathed CO₂ (dead space) in RPE. It describes the development of a “transfer standard” as a substitute for the RPE so that the results from test apparatus can be compared without the variability inherent in fitting RPE; it discusses the results received and how problems with particular test house apparatus can be identified and remedied. It also describes how the device can be used to check breathing resistance measurements.</p>