

ISRP 2002 abstract

Presenter/author	Title	Abstract
Capon, A. <i>Avon Technical Products, UK</i>	How Leak-tight are New Respirators?	Full facepiece respirator Standards and Performance Specifications world-wide often specify that the respirators shall meet a leak tightness requirement. This is not a measure of how well a respirator fits on a person, but how well the components of the facepiece are fitted together to stop leaks. However, standards vary in the way leak-tightness is both specified and tested.
Savarin, M. <i>ICS Laboratories Inc. USA</i>		<p>To the layman it may seem obvious that a new respirator should be leak-tight. But what does that mean? Is a small leak back through the exhale valve permissible, even though the respirator assembly is perfectly leak-tight? When testing the respirator, must the seal of the mask onto the test device be perfect, or can a small leak be tolerated here? Does the definition of a leak-tight respirator in one standard equate to the same in another?</p> <p>This paper examines the ways in which different standards and specifications define and measure leak-tightness. These definitions are mathematically compared against a common denominator – Protection Factor – to see how they perform. The relative strengths and weaknesses of the commonly used methods for leak-tightness are also discussed.</p>