

ISRP 2002 abstract

Presenter/author	Title	Abstract
Bien, Ching-Tsen <i>LAO Consulting Inc., Crofton, Maryland, USA</i>	The Development of Respirator Protection Factors in the United States	<p>The term "protection factor (PF)" was first defined by the Bureau of Mines in 1965 in the respirator approval schedule. Later, the Atomic Energy Commission sponsored a PF development program at the Los Alamos Scientific Laboratory (LASL). LASL had developed PFs for various classes of respirators. In 1975, OSHA and NIOSH initiated a standard completion program (SCP) that provided guidelines on OSHA enforced permissible exposure limits (PEL). The respirator decision logic (RDL) is a part of the SCP. The RDL lists the assigned protection factor (APF) for various classes of respirators. The APFs are based on the PFs developed by the LASL. OSHA has adopted these APFs in the agency promulgated health standards. In the early 1980s, NIOSH conducted workplace studies to determine respirator performance during use. Based on the workplace data, NIOSH revised the RDL in 1987. There was litigation concerning the OSHA promulgated APFs. The American National Standards Institute (ANSI) has developed consensus standards for respiratory protection. The ANSI Z88.2 standard sets APFs for respirators. However, several of the ANSI and OSHA APFs are different, and there is disagreement over whether the assignment of PFs should be based on the workplace or simulated workplace data.</p>