ISRP 2000 abstract

Presenter/author	Title	Abstract
Hern, J. A. (Dr) Research specialist, 3M Canada Co.	**Filter Design At The Interface Between Military Specifications And Civil Approval Standards**	Air purifying respirators for first response, domestic preparedness and anti-terrorist personnel should provide broad-spectrum protection encompassing both industrial chemicals and chemical warfare agents. As the personnel responding to a release incident will most likely include both civil and military organizations, respirators that meet civil approval standards as well as military performance requirements are desirable. Traditionally, military specifications for air purifying respirator filters refer to chemical warfare agents only and are based on military use doctrines. That includes recognition that use in IDLH environments may be required in certain circumstances. In contrast, civil approval standards for respirators relate to long-term protection of workers in a well-characterized environment. A variety of use limitations are applied as conditions of the approval. A broad-spectrum air purifying filter which meets the requirements of both types of performance standard presents some interesting design challenges. The need to accommodate civil and military standards can impose limitations on filter design and performance. Some of these aspects of filter design will be highlighted and discussed in relation to defining a ?First Responder? respirator standard.