

**Respiratory Protective Devices within ISO/TC 94/SC 15
-A New Approach-**

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ABSTRACT

This paper gives an overview about the work process of the newly founded ISO Subcommittee (SC) 15 within ISO/TC 94.

Since the start up of SC 15 in March 2002 progress in all its working groups (WG) has been made. Following the scope of SC 15 the two new upcoming Standards for filtering devices and supplied breathable gas devices will be performance-related with a clear focus on the human being. Human factors such as work rates, breathing resistance, allowable CO₂ concentration within the breathable gas and heat stress will be addressed and given to the standard writers in WB 2 and WG 3 as guidelines to derive the requirements.

RPD's shall fit to a wide range of worldwide users whose interfaces have to be described. The users are grouped into three types – negroid, mongoloid and caucasian - with main focus on their face contours. Human interfaces design will be optimised and will generate a perfect fit. Products have to be marked accordingly to allow individual selection and use. A newly developed classification scheme for RPD's will support the selection process. Users have to analyse their working conditions via risk assessment by answering basic respiration-related questions such as: Is oxygen deficiency given? Are hazardous gases or particles or both present? Which protection level is requested? Which work is to be done with the equivalent work rates and which maximum continuous wear duration is expected? The scheme offers specific categories of answers. And each answer in conjunction leads to a class of RPD.

Tomorrow's RPD's will be classified due to their performance level, independent of the technology being used - a performance-orientated approach.

Specific requirements resulting from various applications such as fire fighting, mining or marine usage will be specifically addressed in the classification scheme which underlines the application-driven approach.

Finally, the new ISO-Standards will follow the system approach - from breathable gas source to the users' interface. These systems also have to take into account the compatibility requirements between all personal protection equipment - a great challenge for the new ISO-Standards for RPD's.