

Validation of the ISO Protection Levels – Initial steps

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A new respirator selection, use and maintenance standard is being prepared by the ISO Respiratory Protective Device (RPD) Standards Committee - ISO/TC94/SC15. As part of this new standard, 'ISO Protection Levels (PLs)' - which relate to the in-use performance of RPD - have been generated. These proposed protection levels have been derived from analysis of current assigned protection factors, their associated nominal protection factors (NPF) and expert knowledge of differences between laboratory and workplace protection performance of current respirators. However, because no new workplace protection factor data were used in their derivation, it is essential that the proposed PLs are validated before being adopted for use in the selection of RPD certified according to the new ISO performance standards.

As part of the validation process, a number of international test laboratories have conducted a series of total inward leakage tests on a sample of existing RPD models. The testing was performed in accordance with the latest draft of the ISO test method ISO16900-1 *Respiratory protective devices: Method of test and test equipment - Part 1: Determination of Inward Leakage*.

This presentation will introduce the ISO PL concept, cover the validation plan and present the results of the work to-date.