# ISRP 2000 abstract

| Presenter/author | Title | Abstract |
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| **Howie**, Robin<br><br>Robin Howie Associates, Edinburgh | **Selecting RPE for protection against asbestos** | RPE is generally selected to ensure that in-mask contaminant concentrations do not exceed the relevant Occupational Exposure Limits (OEL). For substances where OEL are set to either completely prevent or reduce any adverse health effects to a very low level, controlling in-mask concentration to OEL levels is adequate.<br><br>However, at current OEL for asbestos there is significant risk. For example, in the UK it is officially anticipated that exposure to amosite or crocidolite at the current OEL of 0.2 fibres/ml will lead to 5,000 excess of lung cancer deaths plus 2,500 - 5,000 mesothelioma deaths in workers exposed at the limits, HSE (1993), HSC (1999). That is, exposure at OEL concentrations will result in 7,500-10,000 deaths per million. Reassessment suggests that these official figures substantially underestimate likely deaths at OEL concentrations. This reassessment indicates that 5,000 excess deaths per million will result from exposures to: chrysotile at 0.09 fibres/ml; amosite at 0.016 fibres/ml; or crocidolite at 0.008 fibres/ml. If 5,000 excess deaths per million is unacceptably high it will be necessary to reduce in-mask concentrations approximately pro rata below the above figures to reduce excess deaths to “acceptable” levels.<br><br>The derivation of the above required limits will be explained and discussed |