



# RESP-FIT® ISO RPE Webinar

## Attendee Questions & Answers

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### Recorded Friday 25th August 2023

This webinar provided an update on the ISO Respiratory Protective Devices Standards, bringing this global Standard back to home.

Standards are used to demonstrate conformance to local regulations / laws. There is a new set of globally harmonised standards for respiratory protective devices (RPD) that changes the focus from performance by design to performance required by the wearer. The work on these standards started more than 20 years ago; with several RPD standards already published.

Australia/New Zealand joint standards (AS/NZS) have been reviewing and adopting these standards through the work done under the SF-010 Occupational Respiratory Protection Committee.

This webinar was presented by the Chair of the ISO respiratory protective devices committee (ISO/TC 64/SC 15) providing a high level overview of these new suite of ISO standards. The Chair of AS/NZS occupational respiratory protection committee (SF-010) and a number of committee members also discussed information on the local New Zealand and Australian adoption plans of these standards.

Question	Answer
1. Are you looking at tests for outward leakage as they are in the US	There are no Australian member involved in the relevant Test method standard for this so we are not sure. We have not heard it mentioned but maybe it is being considered by the relevant Working Group.



<p>2. Have you looked also at the control banding approach for the selection of respirators for bioaerosols such as what is done in the Canadian Standard CSA Z 94.4</p>	<p>SA-SNZ TS ISO 16975.1 Annex C (Informative) C.1.3 Refers to the control banding method for the determination of the minimum required Protection Level</p>
<p>3. How does the TIL assessment take into account differences in facial size/shape of wearers?</p>	<p>A TIL panel must consist of a panel of subjects with a range facial dimensions. From SA NZS TS ISO 16976-2:2021 "This panel covers 96,7 % of males and 98,7 % females of the selected population. This panel has limits of 98,5 mm to 138,5 mm for face length and 120,5 mm to 158,5 mm for face width. These limits were first based on the male mean plus two standard deviations (SDs) and the female mean minus two SDs. Cell boundaries were then adjusted so that the population can be distributed among cells as uniformly as possible. The boundaries were set so that at least 95 % of the population was included in the panel. Refer AS/NZS ISO 16900.1:2021 Determination of Inward Leakage which refers to SA NZS TS ISO 16976-2:2021 Anthropometrics.</p>
<p>4. Where selecting equipment by type associated with assigned protection factor has been usual, adoption of ISO compliant respirators will mean the protection is associated with the individual model. One companies half-facepiece could match another's full-facepiece respirator. This is a huge mindset shift for the end-user - how does AIOH and the Australian regulatory environment in general plan on managing this transition</p>	<p>Yes this will be a major change of approach for industry. Education will be key over the coming years during the transition period and ongoing. The AIOH and RESP-FIT will play a key part in this education as well as manufacturers of respiratory protective devices.</p>
<p>5. Once the timeframe is out around iso adoption, how long will changes to resp-fit take? and will the certification process have to change significantly to meet education requirements under this new standard?</p>	<p>This will be something RESP-FIT will monitor during the transition period to when it makes the most sense to shift to ISO selection terminology and Protection Classes. It is likely still a number of years till AS/NZS ISO rated products are on the market for fit testers to apply these new approaches.</p>



<p>6. You mentioned facial hair policies. Do you anticipate any changes to the requirement to be clean-shaven when wearing tight-fitting respirators?</p>	<p>There are no changes re facial hair. At the last ISO meeting they were looking at what is happening in Australian healthcare, but it is the current position to review evidence as it comes to hand.</p>
<p>7. The current AS/NZS 1715 lacks utility with respect to healthcare, as evidenced by the various State Health departments developing their own guidelines for RPDs in healthcare. Will the revised Stds address the healthcare industry or will Healthcare continue to stand separatley?</p>	<p>ISO 16975 series of standards and ISO 17420 series which have/will be adopted as AS/NZS standards do cover for all uses of respirator environments with the exception of RPD used exclusively under water, for use in aircraft and medical life support respirators and resuscitators. This means that Healthcare industry is certainly covered by these new standards.</p>
<p>8. Is there any value in Workplace Protection Factor studies given the new system of classification?</p>	<p>Relevant Workplace Protection Factor studies were taken into account by the ISO Working Groups when assessing the Protection class and safety factors used for each. SA/NZS TS ISO 16900.1 Annex K Transition from TIL to Protection Level: Safety Factor derivation rationale</p>
<p>9. Not a manufacturer but wondering if there is transition arrangement for AS1716 -&gt; 17420.2 Just looking around my office, there are tons of different manufacturers, incl. Australian, who have recently undertaken testing to AS1716 for their RPD's. Also: what about where AS/NZS 1716 is incorporated in some legislation (e.g. Vic OHS Reg's crystalline silica section which is newish)</p>	<p>This will take some years to implement for the various manufacturers We will know more after October standards committee meeting regarding transition timelines</p>
<p>10. How does the Protection work for re-usable respirators? Surely this would have take the specific combination of BOTH mask AND filter cartridge?</p>	<p>Yes, each filter and facepiece combination will have a Protection class level. Gabrielle briefly showed that table in her presentation which showed the various combinations. Refer SA/NZS TS ISO 16973:2023 Annex B Table B.16 example table</p>
<p>11. Can you please elaborate on "combination" respirators, e.g. spray painting</p>	<p>They will be evaluated as a combination of respiratory interface and filter type/combination. Manufacturers will advise on what specific chemicals their products may also provide protection from.</p>



<p>12. Can you see any challenges to the transition to ISO anywhere within the business community or regulatory agencies</p>	<p>Yes there will be lots of challenges with this transition over the coming years for all. Still need to get the regulatory bodies onside with ISO - much regulation and codes etc refer to 1715/1716 and will need to be adjusted</p>
<p>13. I can understand the science behind the changes but are they actually going to make a real difference to the protection of the worker when the education and assessment needed is increasing in complexity?</p>	<p>The worker will be wearing products and needs only to use it properly. This means they do not need to understand the full standard issues and requirements. So not much different than now for the worker.</p>
<p>14. The cost of standards can be a barrier to higher level adoption/compliance with standards - a real bug bear of many! But as professionals we will be required to be across significant parts of several of these. How much is the suite of ISO 16900/17400 RPD related standards going to cost (understand not everyone needs/wants the full suite of ISO standards)</p>	<p>You would only need to buy the specific standards that you are interested in, but unfortunately there is a cost and the standards are sold on an individual basis or they are also available as part of agreed standard access packages that your organisation may have in place with a standards service provider. To help with non-commercial access, Standards Australia has recently launch a pilot program call "Reader Room" which provides limited no-fee access for non-commercial purposes. <a href="https://readerroom.standards.org.au/">https://readerroom.standards.org.au/</a> University Alumni can also access standards through Alumni programs.</p>
<p>15. Was wear time considered re selection?</p>	<p>In SA/SNZ TS ISO 16975.1:2023, wear time is one of the listed tasks factor consideration. It notes that for some types of RPD the maximum possible wear time and frequency of use may be limited due to wearer comfort and physical burden. Using assisted RPD can help minimise fatigue and discomfort.</p>
<p>16. Re; facial hair - NSW Health provides an option for "beard wrap" technique for those who for religious or personal reasons maintain facial hair; one still has to 'pass' the fit test.</p>	<p>ISO is looking at these techniques but they need to be tested/validated before they may be recommended</p>
<p>17. Which is the best equipment to assist in identifying a worker flow rate?</p>	<p>Can use approx. guidance from physiologists. Also can try using higher work rate filters to see if they are more acceptable to wearer</p>



<p>18. I was just composing a question about the labs. Isn't there a consequent problem that Australia being a small market that manufacturers won't bother developing products just for them - until ISO becomes adopted in a major market? It may be a good move to establish labs to do this.</p>	<p>That certainly is a real-world challenge thinking of global manufacturers and business considerations. Being the first country/region to adopt this may mean longer for ISO products to appear, but can be a business opportunity for local and global laboratories who set themselves up first for manufacturers. There already is 1 test laboratory in Australia that has obtained ILAC Accreditation for the actual ISO/AS/NZS 16900 Test Standards series.</p>
<p>19. The ISO standards seem to markedly increase the complexity for workplaces to select and use respiratory protection. There is a poor level of understanding of the current AS/NZS standard in many Australian workplaces. Is there any plan to address the current and impending knowledge gap?</p>	<p>For workplaces, there certainly will be a period to understand the new classification system and how they are applied during the selection process. This is where the AIOH and RESP-FIT plan to help educate the Occupational Hygiene and Fit Tester community on these new standards over the coming years, so that we all can assist workplaces with their respirator selection as part of their respiratory protection program.</p>
<p>20. Is the general message to us as Occupational Hygienists is to be aware that changes will be occurring, start thinking about how we would apply and watch this space, please?</p>	<p>Yes, we want to make people aware of these new standards as they are currently adopted and can be found on Standards Australia website. Though as we covered we are still yet to have a transition period set or any products in the market. This gives us all more time to understand the new classification system to apply to respirator selection in the workplace.</p>