

Respirator Selection: Remember the Worker

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The article by Paul Puncochar on criteria for respirator selection in the October *Synergist* makes many good points and could be very helpful for industrial hygienists or others when faced with the need to choose respirators in the work place.

I would add several selection criteria related to the work expectations for employees on the job. Respirators can also be selected to minimize performance decrements for the wearers, and that can have economic consequences important to employers. For instance, will the wearers be working in the heat? If so, then we have found that PAPR blower air flowing across the face to be an important part of respirator acceptance and better performance. Will the worker be required to communicate verbally with other workers on the job? If so, then careful consideration should be given to speech transmission aspects of the respirator. Will the wearer be required to wear the respirator for long periods of time? If so, then face seal and nose cup seals can make a big difference in worker attitudes. Will the wearer be required to work in short bursts of intense activity or long periods of low activity? The latter generally requires better visual field of view than the former.

If the worker resents the respirator because he cannot stop a sneeze, blow his nose, or rub his itchy eye, he will not be likely to keep the respirator in place. If the respirator interferes with other equipment he is using, or if he cannot maneuver in a tight space, he may not tolerate the respirator. If cool air blows on the lens and causes fogging, he may become very frustrated that he cannot see.

Workers wearing respirators are required to adjust to the respirator, which is not the ideal situation. When they do this, they are often not as productive as they would be without the respirator. A lot depends on whether the task dictates the rate of work or whether the wearer can adjust the rate of task performance to a comfortable pace.

There is more to respirator selection than the protection the respirator affords. Expectations for the wearer are important also. After all, the wearer was hired because there was a need to get a job done. Respirator selection can impact how well the job gets done as well as protect the worker from dangerous air contamination.

Sincerely,

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