The More Things Change...

Training about a company's respiratory protection program and the uses and limitations of the respirators in use is still training, even if more delivery options are available.

BY GREG ZIGULIS

It was in about 1987 that I had my first solid introduction to respiratory protection concepts, through an American Industrial Hygiene Association class taught by someone who was an old veteran in it. I loved how logical it all seemed when explained by an expert.

That was a long time ago. Some things have changed so much since then!

- The quality of and options available for respirators and related products are better than ever.
- Medical clearances for the wearing of respirators "can" be easier through online completion of respirator questionnaires coupled with the review and (if medically warranted) in-person follow up by a physician or other licensed health care professional.
- While at one time it seemed as though many hospitals were not "open" to the need for NIOSH-certified respiratory protection, now there is a detailed hospital guide, "Implementing Hospital Respiratory Protection Programs: Strategies from the Field" (The Joint Commission, 2014, with support in part from NIOSH). This even includes references to increasing the efficiency of respiratory protection programs using Lean Six Sigma concepts.
- The new ANSI/ASSE Z88.2 - 2015 (just published) contains some information not in prior versions and has, for example, notes about bioaerosols, guidance on the establishment of cartridge and canister change schedules, and "effective fit" concepts.

Current discussions about ISO respirator standards in development that would provide different respirator classifications and "selection and use" criteria could be impactful down the road.

So the selection and use of respiratory protective devices and respirator program requirements *could* seem daunting. However, basic principles remain the same. For example:

- Identifying and evaluating the respiratory hazard is still identifying and evaluating the respiratory hazard. When NIOSH suggests there is a need for better evaluation and protection to persons involved in fracking operations ("beyond respirable silica"), the issue is the same: recognition, evaluation, and control, including through the selection of respirators based upon evaluated hazards.
- Fit testing is still fit testing, although testing equipment has become more easily available and/or new methods have been developed (quantitative fit tests using ambient aerosol, generated aerosol, and controlled negative pressure).
- Training about a company's respiratory protection program and the uses and limitations of the respirators in use is still training, even if more delivery options are available.

Some respirator applications may call for a sophisticated approach to exposure assessment, and there can be issues requiring technical assistance. However, when it comes to the overall development and implementation of an employer's respiratory protection program, there are some program content considerations that are common among industries. I've described a few of those considerations in a martial arts context.

Program Content Considerations

I remember learning a principle from a karate instructor many years ago that I've kept in mind ever since. The principle was that of practicing and perfecting a variety of "basics" (techniques, approaches, methods) and relying upon them for competition and real-world (although hopefully you'd never have to use it) applications. Techniques were selected based upon how you were able to "read" your opponent, and good prior training permitted you to respond flexibly with well-honed skills. Students from other schools sometimes used more exotic moves that looked really cool in "show" but were not always perfected or practical; the students who stuck closer to their basics were the ones who won.

To me, applying those concepts to respiratory protection program content and requirements translates into:

Exposure assessment is like "reading" and understanding your "opponent."

- Describe in your written program how your company will assess the materials and exposures that potential respirator wearers need or may need protection from. There are many different techniques, tools, and thoughts about how much data are needed—this is where "art and science" are needed by a qualified person.
- Work conditions and processes change, just as a fight opponent can. Plan to re-assess as processes and materials change.

Respirator selection is a bit like choosing your fighting technique based upon your opponent:

- Describe what you will be protecting employees against, how you will be sure respirators are se-

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lected the right way, and options.

- How will your company handle "uncertain" data and requests for issuance of respirators before data are available?

Advance program policy determination can be analogous to advance preparation and flexibility of response:

- Know whether you will permit "voluntary use" of respirators, and if so, how that will work.
- For reusable facepieces, know where you will set up cleaning stations/locations, which exact supplies will be used, and where facepieces will be dried and stored.
- Know how you will control the selection and issuance of respirators and corresponding supplies.
- Have your medical clearance process defined and expect potential employee concerns.
- Define your PAPR policy, if you will use PAPRs. Will you issue and encourage PAPRs for certain types of work, even if that level of protection is not needed—perhaps for the sake of increased wearing of respirators or for other types of protection (for example, integral hard hat protection)?

Sticking to the basics, you might want to work with your employees to establish a reasonable but limited set of selection options. For any one particular hazard, there can be many protection options, some more costly than others; the more the options there are, the more the potential confusion and room for error. Define what is needed for what, establish a few options, and communicate those options in a simple way.

These are just some considerations. There are many resources that can be found on the web. There is an excellent list of resources at *https://www.osha.gov/SLTC/respiratoryprotection/guidance.html.* Respirator manufacturers' and suppliers' websites can have great information, especially with regard to selection tips and cartridge changeout schedules. Of course, appropriate regulations need to be consulted (see 29 CFR 1910.134 where OSHA applies, 30 CFR 56/57.5005, 30CFR58.610 where MSHA applies, etc.)

Implementation

As we all know, the best written program can fail if it is not rolled out well. Resistance to implementing a new and managed program will depend upon a company's leadership approach and cultural maturity. Different approaches will be needed in different organizations.

If you are hearing things like "I heard if I put Vaseline over my sideburns and beard, I won't need to shave" and "All I want to do is wear this dust mask; forget the training and program, I'll just go to the local hardware store," then that might need to be approached differently than for other companies.

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Employees can have implementation concerns that turn into roadblocks that may not always be articulated well. These can include concerns about favored brands and models, who can buy what, the perceived "value" of the respirator medical clearance process, and length of training. However, there are some things that can be kept in mind and acted on as part of a program rollout to help overcome obstacles.

- Consider using a very deliberate rollout strategy that includes significant advanced planning and communication with the management team and a broader group of employees. While there are legal "must-do's," employee buy-in is very important. Certainly, just "selecting" some respirators and saying "here they are" and "here's the program" is not likely to work well.
- Help groups of employees see the need for change in personal and emotional terms. One of the more effective program rollouts I saw recently occurred after a group of employees heard a passionate presentation about "breathing safety" by someone who thought his illness had been created by his exposure to fumes over the course of his career. Those employees came back "asking" for an improved program.
- Consider applying proven models for making change, as applicable. One famous model is that described in *Leading Change* by John P. Kotter. His eight steps model includes establishing a sense of urgency; working with a team of people who will be champions of change; creating and communicating (in multiple ways) a compelling vision; making changes to organizational systems, processes, and structures; achieving early, short-term wins to build momentum and confidence; and ensuring that new metrics are in place that can help provide business alignment.
- Another idea to consider is that of "enhanced organizational depth perception" articulated by Robert Pater in the May 2015 edition of *Occupational Health & Safety*.
- You might find other implementation ideas that are interesting that you could apply to respirator or other safety related programs in *Contagious: Why Things Catch On*, by Jonah Berger.
- Ultimately, help people feel confident in "their" respiratory protection program.

Conclusion

Respiratory protection program basics haven't changed much, although the tools available to us have improved dramatically. Be careful how you develop and roll out programs, which can arguably be just as important as the content of your program. Only with good attitudes and buy-in can we take advantage of the great improvements made available to us over the years. Good luck with your programs. OHS

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