4 Tips for Maintaining Rescue Respirators

Like most equipment, respirators only protect workers from hazardous atmospheres when they’re in good working condition. In fact, poorly maintained respiratory protection may offer no protection at all’with fatal results.

The NIOSH Science Blog recently published tips for properly maintaining one type of respiratory protection: Self-Contained Self-Rescuers (SCSRs), which are used by miners (and others) to escape from a hazardous environment. Have your workers who use SCSRs follow these four tips to ensure the equipment will be functioning properly in the event they need it:

1. Inspect equipment daily. Require workers to perform visual inspections to ensure that their SCSRs are functioning reliably. For example, a loose chemical bed or lack of starter oxygen can be the product of rough handling or a manufacturing defect’and these types of issues could go unnoticed without regular inspections. Conducting regular inspections will help workers get to know their respirators on a more intimate level and become aware of these kinds of issues.

2. Follow the manufacturer’s instructions. Workers should always carry and clean their SCSRs as recommended by the manufacturer to avoid damage, such as excessive dents to the case. Also, they should store and use the equipment within the manufacturer-specified temperature limits. Both excessive denting and exposure to temperature extremes can cause SCSRs to malfunction.

3. Keep SCSRs free of dirt. NIOSH research found that dirt can hide problems or even cause damage to the device. For example, during a recent NIOSH study, an in-service SCSR respirator was brushed to clean the soiled device, which revealed a cracked moisture indicator. Had this SCSR been cleaned for on a daily basis, the indicator damage would’ve been discovered and the respirator would’ve been removed from service. This hidden flaw was a danger to the miner depending on the device in an emergency. So have workers brush dirt from the SCSR case daily to allow for proper day-to-day inspection. When any damage is found, the SCSR should always be removed from service.

4. Check the sealing features of the SCSR case. A damaged seal can allow dirt or moisture into the case, which may cause the respirator to malfunction in an

emergency situation.

For more information on respirators, see:

- Choosing appropriate respiratory protection
- Respiratory protection programs
- Respiratory protection inspection form.