

## Replacement Self Contained Breathing Apparatus Cylinders



### Public Employee Alert Safety & Health Bulletin ATTENTION: ALL Public Employers

July 2009

It has been brought to the attention of PEOSH that employers may be purchasing replacement self contained breathing apparatus (SCBA) cylinders that were not part of the SCBA assembly that received NIOSH certification. Using SCBA cylinders that were not part of the original assembly voids the NIOSH certification for the entire assembly. Using respirators that are not NIOSH certified is a violation of the PEOSH Respiratory Protection Standard, 29CFR1910.134(d)(1)(ii).

Before purchasing replacement SCBA cylinders, the employer should get proof that the cylinders to be purchased do not void the NIOSH certification.

Attached are two documents that provide important information. Attachment 1 is a copy of the May 4, 2007 NIOSH Respirator Users Notice. Attachment 2 is a Federal OSHA memo concerning SCBA cylinder interchangeability.

## Safe Work Practices Saves Lives

For additional Information on Public Employee Safety and Health Contact:

**Websites:** [http://lwd.dol.state.nj.us/labor/lsse/safetyhealth\\_index.html](http://lwd.dol.state.nj.us/labor/lsse/safetyhealth_index.html)  
<http://nj.gov/health/eoh/peoshweb/>

<p>Safety Issues                  New Jersey Department of Labor &amp; Workforce Development                  Office of PEOSH                  P.O. Box 386                  Trenton, NJ 08625                  (609) 292-0767                  (800) 624-1644</p>		<p>Health Issues                  New Jersey Department of Health &amp; Senior Services                  PEOSH Program                  P.O. Box 360                  Trenton, NJ 08625-0360                  (609) 984-1863</p>
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# **Attachment 1**

## **NIOSH Respirator Users Notice**

**May 4, 2007**

### **Subject: Use of Replacement and Spare Parts**

The National Institute for Occupational Safety and Health (NIOSH) issues certificates of approval for specific and complete respirator assemblies after the respirator has been evaluated and found to comply with all the requirements of the NIOSH regulations at Title 42, *Code of Federal Regulations* (CFR) Part 84 (42 CFR Part 84). As part of this evaluation, NIOSH reviews the respirator manufacturer's quality control plan to determine if it is satisfactory. The respirator manufacturer<sup>1</sup> must address all the components of the respirator in its quality control plan, including those manufactured in-house and those obtained from suppliers. A respirator that includes any replacement or spare part that has not been inspected as part of the respirator manufacturer's quality control plan is in a configuration not evaluated by NIOSH, and is not NIOSH approved. Please consult the respirator manufacturer before purchasing and installing replacement or spare parts to ensure the NIOSH-approved configuration is maintained.

### **ADDITIONAL INFORMATION**

This is an updated version of a previously-issued (November 6, 1984) Users Notice on the use of unapproved subassemblies. It is being reissued to clarify the interchangeability of respirator subassemblies and unapproved modifications to NIOSH certified (approved) respirators. In some cases even minor modifications to respirators may make significant changes in the performance of the respirator, even if the proposed replacement components or subassemblies (such as self contained breathing apparatus (SCBA) air cylinders or air supply hoses) meet the same component-specific industry safety and performance standards as those included in the NIOSH approval.

Respirator manufacturers who modify certified respirators must test the modification to determine if the respirator continues to meet the minimum requirements of 42 CFR Part 84, and must submit the modifications to NIOSH. A user who modifies a certified respirator may not be able to determine whether a change will decrease respiratory protection. Several cases have been reported to NIOSH where unapproved modifications or use of an unapproved subassembly have resulted in respirator failures.

The NIOSH respirator certification regulation, 42 CFR Part 84, defines an approval as “a certificate or formal document issued by the Institute stating that an individual respirator or combination of respirators has met the minimum requirements of this part [84].” Approved is defined to mean that the respirator conforms to the minimum requirements of the regulation. The minimum performance requirements include the applicable construction, performance, manufacturing system quality control and respiratory protection requirements set forth in 42 CFR Part 84.

<sup>1</sup> For the purposes of this notice, the term “respirator manufacturer” means the individual, partnership, company, corporation, association or other organization that holds the NIOSH-issued certificate of approval for a respirator.

The regulation permits NIOSH to only approve complete respirator assemblies and prohibits the approval of respirator subassemblies such as SCBA air cylinders or supplied air respirator (SAR) air supply hoses. These requirements are intended to insure that one respirator manufacturer has overall control and responsibility for the integrity of the approved respirator. The respirator manufacturer has the responsibility to ensure that its replacement parts are “designed and constructed to ...maintain the effectiveness of the respirator.” 42 CFR 84.62(b).

NIOSH requires the respirator manufacturer to file a quality control plan to assure the quality of the respiratory protection provided by the respirator for which the approval is sought. 42 CFR 84.40. Once approved, that approved quality control plan becomes part of, and is incorporated into, the certificate of approval. Compliance with that plan is a condition of approval. 42 CFR 84.42(c). The issuance of the certificate licenses the respirator manufacturer to use the NIOSH approval label but also obligates that respirator manufacturer “to maintain the approved quality control sampling schedule and the acceptable quality level for each characteristic tested...” 42 CFR 84.33(f).

Therefore, users of NIOSH approved respirators are cautioned against interchanging subassemblies or making unapproved modifications to their respirators. Respirators which have been modified by the interchanging of subassemblies or other deviations using parts not produced and distributed under the respirator manufacturer’s controlled system, no longer meet the definition of being approved as a NIOSH certified respirator and the use of the NIOSH approval label is not authorized for that unit.

Sincerely yours,

Heinz W. Ahlers  
Chief, Technology Evaluation Branch  
National Personal Protective Technology Laboratory

(<http://cdc.gov/niosh/npptl/usernotices/pdfs/UsersNotice05042007.pdf> )

## Attachment 2

June 20, 1997

MEMORANDUM FOR: REGIONAL ADMINISTRATORS

FROM: JOHN B. MILES, JR., Director  
[Directorate of Enforcement Programs]

SUBJECT: SCBA Cylinder Interchangeability

Recently it has come to our attention that some manufacturers are promoting their lower priced cylinders for use on other manufacturer's self-contained breathing apparatuses (SCBAs). They are also telling their customers that this practice is allowed by OSHA standards. This statement is misleading. Employers who use components from other manufacturers on respirator equipment are voiding the NIOSH approval for their respirators.

Two of OSHA's standards [1910.156(f)(1)(iv) and 1910.120(q)(3)(x)] do permit the use of other manufacturer's cylinders on self-contained breathing apparatuses (SCBA's), **when deemed necessary to meet the tasks at hand**. OSHA's concession to this practice is only intended to be granted in emergency, lifesaving situations.

An example of an allowed situation would be when several different emergency response organizations respond to a hazardous situation that requires the use of their SCBA's. As the cylinder supplies are depleted, the appropriate approved cylinder may not be available for a particular SCBA when a life-saving response is required. Rather than waiting until the appropriate cylinder is obtained, the responder is permitted to use another manufacturer's cylinder provided it meets the specifications of the respirator manufacturer and has the same capacity and pressure rating. Although this, temporarily, voids NIOSH approval, OSHA believes the interchangeability of air cylinders is important enough to life safety of fire brigade members to permit it. After the emergency, OSHA expects employers to return their SCBA's to their original NIOSH-approved condition.

In non-emergency situations, OSHA still expects SCBA's to be maintained and used in their approved condition.

I hope this clarifies OSHA's position on the interchangeability of cylinders on SCBA's. If you have any questions or concerns, please contact [the Office of Health Enforcement at 202-693-2190].

**[Corrected 6/2/2005]**

[http://osha.gov/pls/oshaweb/owadisp.show\\_document?p\\_table=INTERPRETATIONS&p\\_id=23479](http://osha.gov/pls/oshaweb/owadisp.show_document?p_table=INTERPRETATIONS&p_id=23479)