



May 9, 2017

LETTER TO ALL INTERESTED PARTIES

Subject: Incorporation of National Fire Protection Association (NFPA) 1986, Standard on Respiratory Protection Equipment for Tactical and Technical Operations, 2017 edition into NIOSH policy statement on “Evaluation and Acceptance of Emergency Breathing Support Systems (EBSS) incorporated into SCBA Approvals”

The National Institute for Occupational Safety and Health (NIOSH) is updating its policy statement on [“Evaluation and Acceptance of Emergency Breathing Support Systems \(EBSS\) incorporated into SCBA Approvals.”](#)

This policy change is being made coincident with the addition of requirements related to the use and operation of these devices in the National Fire Protection Association (NFPA) 1986, 2017 edition, *Standard for SCBA used in Tactical and Technical Operations*. This letter serves as the policy change modifying the above-referenced NIOSH policy statement to incorporate Self-Contained Breathing Apparatus (SCBAs) meeting the requirements of NFPA 1986:2017, or subsequent editions, as part of the current policy statement.

Consistent with the National Technology Transfer and Advancement Act of 1995 and OMB Circular A-119, NIOSH participated in the NFPA consensus standards development process for NFPA 1986. Adoption of NFPA 1986 into the above-referenced policy statements meets the intent of this act.

This policy change is applicable only to SCBAs meeting the requirements of NFPA 1981:2013, or subsequent editions, along with those meeting the newly established requirements of NFPA 1986:2017, or subsequent editions. NIOSH will recognize NFPA 1981:2013 compliant EBSS systems and NFPA 1986:2017 compliant EBSS systems as a part of the NIOSH SCBA approval for users who have received the appropriate level of training. Users will be able to identify approvals for SCBAs which incorporate the required hardware by the explicit listing of an additional EBSS statement to the standard cautions and limitations on the NIOSH approval label. The statement will signify the EBSS components have been evaluated by NIOSH and accepted as meeting the requirements for EBSS under the requirements of either NFPA 1981:2013, or NFPA 1986:2017, or subsequent editions.

Background

Based upon a review of submissions made to the [NIOSH Docket \(Docket # 147\)](#), as well as the applicable Occupational Safety and Health (OSHA) standards, NIOSH has modified the existing “Buddy Breather” policy to further support and encourage best practices in the fire service for the deployment of EBSS. Accessories available on some manufacturers’ products enable users to have the option to provide buddy breathing.

Recognition of these practices and use of EBSS conforming to the newly developed NFPA 1986:2017 standard provides a framework for use in tactical or technical applications. NIOSH recommends that these users also follow guidance developed for firefighters and to formally incorporate best practices used in fire departments for the maintenance and use of EBSS and development of “Buddy Breathing” training programs conforming to NFPA Standards 1404, *Fire Service Respiratory Protection Training* and 1500, *Fire Department Occupational Safety and Health Program*, which will further address cautions and limitations associated with the use of EBSS in future editions. Until such time that the personnel training requirements of NFPA 1404 and the Occupational Safety and Health Program requirements of NFPA 1500 are revised to address EBSS maintenance and use, NIOSH will require the manufacturer User Instructions to provide training information.

Those making application for NIOSH approval are advised of the following minimum requirements:

Additional standards:

In order to be evaluated for incorporation into SCBA approval, EBSS systems must be incorporated into SCBA configurations found to be conforming to NFPA 1986:2017, by a certification organization accredited for personal protective equipment in accordance with ISO/IEC 17065:2012, *Requirements for bodies certifying products, processes and services*, currently Safety Equipment Institute (SEI).

Additional testing:

All components of the EBSS must be able to operate at the specified low temperature limit without adversely affecting the operation of the SCBA, as determined by testing conducted in accordance with NIOSH Standard Testing Procedure Number [TEB-CBRN-ASR-STP-0219](#).

At the minimum activation pressure with the EBSS receiver line held open to atmosphere, the donor unit must be able to meet pressure-demand performance requirements through the remainder of the air supply as determined by testing in accordance with NIOSH Standard Testing Procedure Number [TEB-CBRN-ASR-STP-0220](#).

Starting from a full cylinder and prior to the minimum End-of-Service-Time-Indicator (EOSTI) activation pressure, the EBSS donor/receiver line will be opened to atmosphere and held open. The duration for which the host unit performance meets pressure-demand performance requirements, as determined by testing in accordance with NIOSH Standard Testing Procedure Number [TEB-CBRN-ASR-STP-0220](#), will be measured and recorded

Additional cautions and limitations:

The approval label must include this additional caution and limitation statement (statement EBSS):

EBSS Activation or engagement of EBSS in either the donor or receiver mode changes the SCBA use to Escape-Only. Approved service time as listed on the NIOSH approval label for either the donor, or the receiver is no longer applicable. Additional critical cautions and limitations apply. Refer to section EBSS in the SCBA User Instructions.

At a minimum, these additional caution and limitation statements must appear in section EBSS of the SCBA User Instructions, (similar to the statements appearing in the User Instructions with caution and limitation statement S).

- X EBSS may not be engaged or activated in donor mode after the donor EOSTI has activated ^a.
- X Users must be fully trained in the operation of EBSS in accordance with a training program conforming to the requirements of NFPA Standards 1404 *Fire Service Respiratory Protection Training* and 1500 *Fire Department Occupational Safety and Health Program*.
- X Simultaneous connection of more than two users, (one donor, and one receiver), is not permitted.

General application information:

All approval application(s) shall: 1) be submitted concurrently to NIOSH (Records Room) and SEI and 2) include a completed application package for each SCBA respirator model for which approval is requested. NIOSH submittals must conform to the requirements outlined in the Standard Application Procedure. Standard SCBA approval fees are applicable to each new approval sought. Consultations with NIOSH are available and encouraged prior to submitting an application to enable an accurate determination of required test hardware to be made. Your effort in following these procedures will assist NIOSH and SEI in ensuring an orderly approval process.

We hope this information is helpful to you. Please feel free to contact Robert Stein at, 412-386-6889 or by email at rstein@cdc.gov if you have any questions.

Sincerely yours,

David Chirdon

David Chirdon
Chief, Conformity Verification and
Standards Development Branch
National Personal Protective Technology Laboratory

Cc: Mr. Steve Sanders, SEI

^a Consistent with the requirements of NFPA 1986:2017, EOSTI settings of less than 25 percent +4/-0 of service pressure will not be permitted; however, higher minimum EBSS activation pressures will be considered contingent upon acceptable notification to the user.