

NFPA®

1852

**Standard on
Selection, Care, and
Maintenance of
Open-Circuit Self-Contained
Breathing Apparatus (SCBA)**

2019



Documents

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NFPA® 1852

Standard on

Selection, Care, and Maintenance of Open-Circuit Self-Contained Breathing Apparatus (SCBA)

2019 Edition

This edition of NFPA 1852, *Standard on Selection, Care, and Maintenance of Open-Circuit Self-Contained Breathing Apparatus (SCBA)*, was prepared by the Technical Committee on Respiratory Protection Equipment and released by the Correlating Committee on Fire and Emergency Services Protective Clothing and Equipment. It was issued by the Standards Council on May 4, 2018, with an effective date of May 24, 2018, and supersedes all previous editions.

This edition of NFPA 1852 was approved as an American National Standard on May 24, 2018.

Origin and Development of NFPA 1852

The technical committee was assigned the responsibility of addressing selection, care, and maintenance issues for open-circuit self-contained breathing apparatus (SCBA). To address these issues, the committee developed NFPA 1852, which is oriented to the users of such SCBA and their respective organizations.

This document was developed for organizations that use SCBA for the respiratory protection of their personnel who engage in emergency operations with the goal of reducing the safety risks and potential health risks associated with poorly maintained, contaminated, or damaged SCBA.

This document was also developed to fulfill the SCBA selection, care, and maintenance portions of the overall respiratory protection program required by NFPA 1500, *Standard on Fire Department Occupational Safety and Health Program*, and applies to all SCBA that are certified as compliant with the current and previous editions of NFPA 1981, *Standard on Open-Circuit Self-Contained Breathing Apparatus for Fire and Emergency Services*.

During the development of this document, committee member Deputy Chief Robert Kolenda of the Pittsburgh, Pennsylvania, Bureau of Fire (PBF) worked tirelessly to develop meaningful requirements to assure the safety of fire and emergency services personnel who depend on SCBA for their respiratory protection and their lives. Chief Kolenda lost his son, Pittsburgh Fire Fighter Marc Kolenda, at a fire, due in part to inadequate protection provided by his SCBA.

The first edition, the 2002 edition of NFPA 1852, was acted on by the NFPA membership at its November Association Technical Meeting in Dallas, Texas, on November 13, 2001, and became effective on January 31, 2002.

In the 2008 edition, the committee processed a complete revision of the document including an overall revision of text for clarity and up-to-date terminology. Section 1.3 was revised and restructured to include later editions of NFPA 1981 and to clarify the documents to which this standard applies. Chapter 2 was revised to include the documents referenced within the mandatory sections of the standard and updated editions approved by the committee. Section 3.3 was reviewed and revised as necessary to update or add new definitions according to the project on Fire and Emergency Services Protective Clothing and Equipment glossary.

Chapter 4 was completely reviewed for upgrades and modifications to existing text as hazards involving SCBA. Section 4.4 (formerly Section 4.3), SCBA Compliance — Upgrades and Retirement, was revised and reformatted to add new requirements for SCBA purchased during the effective periods of the 2000 and 2007 editions of NFPA 1981. In Chapter 5, subsection 5.1.1 was expanded to include selected accessories that could be added to SCBA.

Overall, chapters 5, 6, 7, and 8 were completely reviewed for upgrades and modifications to existing text as necessary, and the annex material was updated and expanded to provide additional advisory information regarding selection, care, and maintenance issues.

The 2008 edition was issued by the NFPA Standards Council with an effective date of December 31, 2007.

The 2013 edition of NFPA 1852 was completely reviewed for updates and changes to the existing text. The committee processed several proposals and comments, most notably changing the term hazards in Section 4.2 to adverse conditions. Several annex items were updated to reflect changes in U.S. Department of Transportation terminology, including a replacement of the term exemptions with special permits. Also, in Annex C, the committee replaced the name of the Research and Special Programs Administration (RSPA) with its current name, Pipeline and Hazardous Material Safety Administration (PHMSA).

The 2019 edition of NFPA 1852 features editorial updates and changes to the 2013 text. Since NFPA 1852 is now the selection, care, and maintenance standard for NFPA 1986 as well as NFPA 1981, references to NFPA 1986 have been added to sections of the standard. New requirements for reporting adverse conditions involving SCBA have been added, including removal from service, securing SCBA and restricting access, and documenting the chain of custody. A chain of custody form has been added to an annex as an example for users of this standard. NFPA 1986 now requires organizations to provide to the SCBA manufacturer data logging and photo or video evidence of the specific adverse condition. The 2019 edition also clarifies when SCBAs must be upgraded or retired.

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Committee Scope: This Committee shall have primary responsibility for documents on the design, performance, testing, and certification of protective clothing and protective equipment manufactured for fire and emergency services organizations and personnel, to protect against exposures encountered during emergency incident operations. This Committee shall also have the primary responsibility for documents on the selection, care, and maintenance of such protective clothing and protective equipment by fire and emergency services organizations and personnel.

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Committee Scope: This Committee shall have primary responsibility for documents on respiratory equipment, including breathing air, for fire and emergency services personnel

during incidents involving hazardous or oxygen deficient atmospheres. This Committee shall also have primary responsibility for documents on the selection, care, and maintenance of respiratory protection equipment and systems by fire and emergency services organizations and personnel.

Contents

Chapter 1 Administration	1852– 8	4.9 Technical Authorization.	1852– 13
1.1 Scope.	1852– 8	Chapter 5 Selection	1852– 13
1.2 Purpose.	1852– 8	5.1 Selection for Purchase.	1852– 13
1.3 Application.	1852– 8	5.2 Acceptance.	1852– 14
Chapter 2 Referenced Publications	1852– 9	Chapter 6 Care	1852– 14
2.1 General.	1852– 9	6.1 Cleaning and Disinfecting.	1852– 14
2.2 NFPA Publications.	1852– 9	6.2 Contamination and Decontamination.	1852– 15
2.3 Other Publications.	1852– 9	6.3 Storage.	1852– 15
2.4 References for Extracts in Mandatory Sections. (Reserved)	1852– 9	Chapter 7 Maintenance	1852– 15
Chapter 3 Definitions	1852– 9	7.1 User Maintenance.	1852– 15
3.1 General.	1852– 9	7.2 Technician Maintenance.	1852– 17
3.2 NFPA Official Definitions.	1852– 9	7.3 Breathing Air Cylinder Filling.	1852– 18
3.3 General Definitions.	1852– 9	7.4 Breathing Air Cylinder Requalification.	1852– 18
Chapter 4 Program Component	1852– 10	7.5 Testing.	1852– 18
4.1 General.	1852– 10	Annex A Explanatory Material	1852– 24
4.2 Reporting Adverse Conditions Involving SCBA.	1852– 10	Annex B Instructions for External Examination of SCBA Breathing Air Cylinders	1852– 29
4.3 SCBA Selection, Care, and Maintenance Program Component.	1852– 10	Annex C Requalification of SCBA Breathing Air Cylinders	1852– 29
4.4 SCBA Compliance — Upgrades and Retirement.	1852– 11	Annex D Informational References	1852– 30
4.5 Records.	1852– 11	Index	1852– 32
4.6 Manufacturer's Instructions.	1852– 12		
4.7 Retirement and Disposal.	1852– 12		
4.8 Quality Assurance.	1852– 13		

NFPA 1852

Standard on

Selection, Care, and Maintenance of Open-Circuit Self-Contained Breathing Apparatus (SCBA)

2019 Edition

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Information on referenced publications can be found in Chapter 2 and Annex D.

Chapter 1 Administration

1.1 Scope.

- ▲ 1.1.1* This standard shall specify minimum requirements for the selection, care, and maintenance of open-circuit self-contained breathing apparatus (SCBA) and combination SCBA/supplied air respirator (SAR) that are used for respiratory protection during emergency or tactical or technical operations, in environments where the atmosphere is immediately dangerous to life and health (IDLH) or could become oxygen deficient or IDLH.

1.1.2 This standard shall specify the requirements for SCBA models as detailed in Section 1.3 of this chapter.

- ▲ 1.1.3 For fire departments, this standard shall specify the requirements for the SCBA selection, care, and maintenance component of the respiratory protection program required in Section 7.10 of NFPA 1500.

1.1.4 This standard shall not specify requirements for any closed-circuit SCBA.

1.1.5 This standard shall not specify requirements for other respiratory protection program components of the organization such as SCBA training, appropriate use of SCBA for operations, and breathing air quality as these program components are under the jurisdiction of other NFPA standards.

1.1.6 This standard shall not specify requirements for accessories attached to the SCBA unless specifically addressed herein.

1.1.7 Nothing herein shall restrict any jurisdiction from exceeding these minimum requirements.

1.2 Purpose.

1.2.1 The purpose of this standard shall be to establish procedures as part of a program to provide care and maintenance for open-circuit SCBA and combination SCBA/SAR in order to reduce the safety risks and potential health risks associated with poorly maintained, contaminated, or damaged SCBA.

- ▲ 1.2.2 This standard shall also establish basic criteria for the evaluation and selection process associated with purchasing open-circuit SCBA to assure only SCBA that meet the requirements of NFPA 1981 or NFPA 1986 are acquired for use by emergency services organizations.

1.3 Application.

1.3.1 New and Existing SCBA.

- ▲ 1.3.1.1 For fire departments, this standard shall apply to the requirements for selection, care, and maintenance of the SCBA component of the fire department's respiratory protection program as required by Section 7.10 of NFPA 1500.

1.3.1.2 This standard shall apply to the acquisition of new open-circuit SCBA and to the preparation of new SCBA to go into the "in service" status.

- ▲ 1.3.1.3 This standard shall apply to the organization's existing open-circuit SCBA that are covered in the care and maintenance part of the respiratory protection program for open-circuit SCBA, and the standard shall also apply to the selection process to acquire new open-circuit SCBA to augment or replace existing SCBA.

-
- ▲ 1.3.1.4 This standard shall apply to open-circuit SCBA that were certified by an independent third-party certification organization as compliant with the 2002 or 2007 edition of NFPA 1981, with the 2013 or later edition of NFPA 1981, or with the 2017 edition of NFPA 1986.

1.3.2 Implementation.

1.3.2.1 When this standard is adopted by an organization or by a jurisdiction, the authority having jurisdiction shall set a date or dates for achieving compliance with the requirements of this standard.

1.3.2.2 The organization or the jurisdiction shall be permitted to establish a phase-in schedule for compliance with specific requirements of this standard.

Chapter 2 Referenced Publications

2.1 General. The documents or portions thereof listed in this chapter are referenced within this standard and shall be considered part of the requirements of this document.

2.2 NFPA Publications. National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169-7471.

NFPA 19B, *Standard on Respiratory Protective Equipment for Fire-fighters*, 1971 edition.

NFPA 1500, *Standard on Fire Department Occupational Safety, Health, and Wellness Program*, 2018 edition.

NFPA 1901, *Standard for Automotive Fire Apparatus*, 2016 edition.

NFPA 1981, *Standard on Open-Circuit Self-Contained Breathing Apparatus (SCBA) for Emergency Services*, 2018 edition.

NFPA 1981, *Standard on Open-Circuit Self-Contained Breathing Apparatus (SCBA) for Emergency Services*, 2013 edition.

NFPA 1981, *Standard on Open-Circuit Self-Contained Breathing Apparatus (SCBA) for Emergency Services*, 2007 edition.

NFPA 1981, *Standard on Open-Circuit Self-Contained Breathing Apparatus for Fire and Emergency Services*, 2002 edition.

NFPA 1982, *Standard on Personal Alert Safety Systems (PASS)*, 2018 edition.

NFPA 1986, *Standard on Respiratory Protection Equipment for Tactical and Technical Operations*, 2017 edition.

NFPA 1989, *Standard on Breathing Air Quality for Emergency Services Respiratory Protection*, 2019 edition.

2.3 Other Publications.

2.3.1 U.S. Government Publications. U.S. Government Publishing Office, 732 North Capitol Street, NW, Washington, DC 20401-0001.

Title 29, Code of Federal Regulations, Part 1910.134, *Respiratory Protection*, 7 August 2012.

Title 29, Code of Federal Regulations, Part 1910.156, *Fire Brigades*, 12 December 2008.

2.3.2 Other Publications.

Merriam-Webster's Collegiate Dictionary, 11th edition, Merriam-Webster, Inc., Springfield, MA, 2003.

2.4 References for Extracts in Mandatory Sections. (Reserved)

Chapter 3 Definitions

3.1 General. The definitions contained in this chapter shall apply to the terms used in this standard. Where terms are not defined in this chapter or within another chapter, they shall be defined using their ordinarily accepted meanings within the context in which they are used. *Merriam-Webster's Collegiate Dictionary*, 11th edition, shall be the source for the ordinarily accepted meaning.

3.2 NFPA Official Definitions.

3.2.1* Approved. Acceptable to the authority having jurisdiction.

3.2.2* Authority Having Jurisdiction (AHJ). An organization, office, or individual responsible for enforcing the requirements of a code or standard, or for approving equipment, materials, an installation, or a procedure.

3.2.3 Shall. Indicates a mandatory requirement.

3.2.4 Should. Indicates a recommendation or that which is advised but not required.

3.2.5 Standard. An NFPA Standard, the main text of which contains only mandatory provisions using the word “shall” to indicate requirements and that is in a form generally suitable for mandatory reference by another standard or code or for adoption into law. Nonmandatory provisions are not to be considered a part of the requirements of a standard and shall be located in an appendix, annex, footnote, informational note, or other means as permitted in the NFPA Manuals of Style. When used in a generic sense, such as in the phrase “standards development process” or “standards development activities,” the term “standards” includes all NFPA Standards, including Codes, Standards, Recommended Practices, and Guides.

3.3 General Definitions.

3.3.1 Atmosphere-Supplying Respirator. A respirator that supplies the respirator user with breathing air from a source independent of the ambient atmosphere, which includes self-contained breathing apparatus (SCBA) and supplied air respirators (SAR). [See also 3.3.14, *Self-Contained Breathing Apparatus (SCBA)*, and 3.3.16, *Supplied Air Respirator (SAR)*.]

3.3.2 Care. Procedures for cleaning, decontamination, and storage of protective clothing and equipment.

3.3.3* Combination SCBA/SAR. An atmosphere-supplying respirator that supplies a respirable atmosphere to the user from a combination of two breathing air sources both of which are independent of the ambient environment. [See also 3.3.1, *Atmosphere-Supplying Respirator*; 3.3.14, *Self-Contained Breathing Apparatus (SCBA)*; and 3.3.16, *Supplied Air Respirator (SAR)*.]

3.3.4 Contamination/Contaminated. The process by which protective clothing or equipment has been exposed to hazardous materials or biological agents.

3.3.5 Cross Contamination. The transfer of contamination from one item to another or to the environment.

3.3.6 Fully Charged. An SCBA cylinder filled to greater than 90 percent of the NIOSH rated service pressure.

3.3.7 In-Service. Ready for immediate use.

3.3.8 Maintenance. Procedures for inspection, repair, and removal from service of protective clothing and equipment.

3.3.9* Organization. The entity that provides the direct management and supervision for emergency services response personnel.

3.3.10 Rebuild. To clean and examine compliant product thoroughly and make needed repairs and replace components as specified by the manufacturer.

3.3.11 SAR. An abbreviation for supplied air respirator. [See also 3.3.16, *Supplied Air Respirator (SAR)*.]

3.3.12 SCBA. An abbreviation for self-contained breathing apparatus. [See also 3.3.14, *Self-Contained Breathing Apparatus (SCBA)*.]

3.3.13 Selection. The process of determining what protective clothing and equipment (PCE) are necessary for protection of emergency services response personnel from an anticipated