



**Standards Update:
NFPA 1981/1982, 2018 Edition**

September 14, 2016



- The purpose of this presentation is to provide an overview and current snapshot of the topics that are being discussed for inclusion in the 2018 edition of the NFPA 1981 and NFPA 1982 standards.
- The 2018 edition standard has been confirmed for the Fall 2017 revision cycle.
- The following topics are currently being discussed:

NFPA 1981

- Second Stage Regulator Retention
- Pneumatic Data Logging
- EBSS
- Communications
- Thermal Performance
- CBRN Certification

NFPA 1982

- Transmitting RF Pass
- New Universal PASS Tone

NFPA 1981, 2018 Edition



- **Second Stage Regulator Retention & Removal**
 - This topic was discussed for the 2013 edition standard, but was not included at that time. It is now being incorporated into the 2018 edition standard.
 - This would include a strength of interface test between the facepiece and second stage regulator to ensure that the second stage regulator will not pull out of the facepiece lens.
 - The test would pull the regulator by the low pressure hose in 5 different directions at a force of 56.2 lbs.
 - This would also include a requirement for two distinct actions when removing the regulator.
 - Example: Pull latch and rotate regulator



- **Pneumatic Data Logging**

- Minimums:

- Initial Air Activation (pressure, date and time stamp)
 - Data Logging @ 30 second intervals (pressure, date and time stamp)
 - Data Logging of Pressure Milestones
 - 75%, 50%, and 33% (EOSTI)
 - Breathing Rate @ 30 second intervals (minimum 5 LPM resolution)
 - HUD Deactivation (pressure, date and time stamp)
 - Retain 36 hours of data
 - Output data to CSV file
 - *No requirement for temperature data log*



- **Universal EBSS Fitting**

- The Task Group is working to develop a standardized EBSS fitting that would be universal between SCBA manufactures.
- Minimums:
 - The EBSS shall have an operating range of 80 - 150 psi
 - The EBSS shall have male and female fittings that allow bidirectional airflow, with a check valve to prevent contamination from entering air circuit
 - The EBSS shall have a minimum hose length of 20 inches
 - The EBSS will be accessible using only one hand and able to be deployed by pulling in a single direction
 - The EBSS location will be readily visible and the pouch will be identified as being an EBSS



- **Communications**

- The Task Group is working with the Technical Committee (TC) on Electronic Safety Equipment (ESE) to develop joint performance requirements for hard-wired and wireless radio interface systems.
- The Task Group has chosen Bluetooth protocol as the profile for wireless radio interface systems.
 - Wireless communications would include the connection from an in-mask microphone, remote speaker microphone, or voice amp to a Land Mobile Radio (LMR).

NOTE: NFPA 1802 – *Standard on Personal Portable Two-Way Radio Communications Devices* – will need to add to their standard a requirement to include reference to adding a SCBA to the list of devices to connect to a Land Mobile Radio (LMR), as an alternative to a traditional Lapel Speaker microphone.



- **Thermal Performance**

- There are currently no changes being reviewed for the 2018 edition as it relates to thermal performance of the facepiece lens.
- The University of Illinois Fire Service Institute has received Federal grant funding and continues to conduct research in this area.



- **CBRN Certification**

- NIOSH is developing criteria for labs to be eligible to perform CBRN testing.
- The criteria will be applied to the U.S. Army's Edgewood Arsenal facility to help ensure future reliability, but it can also be applied to any other labs who might be interested in performing CBRN testing.

NFPA 1982, 2018 Edition



- **Transmitting RF PASS**

- The standard would include (2) new RF PASS tests to improve reliability:
 - Multi-hop
 - Wireless networks use two or more wireless hops to convey information from a source to a destination.
 - Multipath
 - Propagation phenomenon that results in radio signals reaching the receiving antenna by two or more paths.



- **Universal PASS Tone**

- The Task Group is changing the PASS tone to account for field reports of the sound not carrying as far
 - From a customer perspective, this could be translated as the volume not being as loud as pre-2013 Edition SCBA and/or not being able to discern direction and track the location of the sound



- **Schedule**

- Cycle F2017 available on the NFPA website - <http://www.nfpa.org/ScheduleF2017>
- Public Comment Period
 - Closes on November 17, 2016
- Estimated Issuance Date
 - November 2017
- Estimated Effective Date
 - December 2017
- Last Day to mark **2013 Edition**
 - August 31, 2018



- **Future Meeting Dates**

- NFPA 1981 – Second Draft Meeting
 - January 17-18, 2017 @ San Diego, CA
- NFPA 1982 – Second Draft Meeting
 - December 6-8, 2016 @ San Diego, CA

Thank You