Executive Summary for NFPA 1802

Working Title:

NFPA 1802, STANDARD ON PERSONAL PORTABLE (HAND-HELD) TWO-WAY RADIO COMMUNICATIONS DEVICES FOR USE BY EMERGENCY SERVICES PERSONNEL IN THE HAZARD ZONE

Note: This is a new proposed standard under development by NFPA’s Technical Committee on Electronic Safety Equipment. It has not yet been opened for Public Input and Public Comment in compliance with NFPA rules.

Tentative Scope. NFPA 1802’s tentative scope is “personal portable 2 way radio communications devices” (subscriber or user radios) for use by the fire service, including structural firefighting, wildland firefighting, and HazMat teams, used inside the “Hazard Zone,” also known as the “Hot Zone,” or the Immediately Dangerous to Life and Health (IDLH) zone.

This scope will thus encompass land mobile radio (LMR) 2 way portable radios; future public safety broadband handheld user devices, using LTE (Long Term Evolution) technology and operating on either the Band 14 FirstNet network or Band 14 commercial carrier networks; and 2 way LMR pagers; as well as the remote speaker microphones for these user devices. An objective is to have the standard be wireless technology agnostic, but operationally very relevant to fire service use in the IDLH.

This scope does not include 1 way portable LMR paging devices, LMR mobile (vehicular mounted) radios, or commercial cellular telephones used by the public (and not within the hazard zone) regardless of technology. This scope does not include land mobile radio (LMR) systems, which is covered in NFPA 1221, Emergency Services Communications Systems, nor does it cover in-building communications systems for firefighters, which are covered in several standards including NFPA 1221 and NFPA 72. This standard also does not cover the issue of radio interoperability. We are not aware of any other standard having the specific scope of NFPA 1802.

Purpose: The purpose of this standard is to define the minimum requirements for personal portable 2 way radio communications devices used by firefighters in the IDLH areas encountered in structural, wildland, and hazmat incidents. This standard will include requirements for environmental ruggedness (to include surviving high temperatures and wet environments), intrinsic safety, immediate access to voice communication and distress alarm features, some programmable features, interfaces to certain other devices such as speaker
microphones, and ease of use by firefighters in personal protective clothing (PPE) and while wearing self-contained breathing apparatus (SCBA).

**Process:** This technical committee is comprised of members from 9 different representations, including users, special experts, manufacturers, and other groups. Per NFPA regulations for balanced representation, no one constituency can be represented by more than 33% of the Principal voting members. This committee currently has 33 Principal members, and 20 Alternate members. The process of developing NFPA standards is consensus driven, and includes opportunity for public input and comment. Non-NFPA committee members are permitted to assist NFPA committees where their special expertise may be needed.

This committee currently has several Task Groups that are specifically focused on areas including Physical Properties, Environmental Testing, Ergonomics, Programmable Features, Intrinsic Safety, Voice Intelligibility, and others may be established as needs arise. Because some of these areas could be addressed within existing NFPA codes and standards, there is an ongoing desire to be consistent where it makes sense by referencing similar testing methods or requirements. These Task Groups have much work to accomplish, because specifying and testing personal communications devices that will survive the IDLH environment that firefighters routinely encounter has not been done before in the U.S.

**History:** The impetus for this new standard was the continuing issue of inadequate fireground communications devices, often cited in fire department and NIOSH Line of Duty Death reports, and Firefighter Near Miss reports. After the tragic death of 2 San Francisco firefighters in June 2011 at a residential structural fire, that department specifically approached NFPA to create a new standard for firefighter portable radios.

**Timeline:**

Late 2012: First draft development meeting

2013: Draft development meetings in Orlando in March, Denver in August, and San Diego in December

2014: Continued development of the NFPA 1802 draft

Upon completion of the draft: The Technical Committee and the Correlating Committee are balloted, then the draft is submitted to the NFPA Standards Council for approval, with a request to enter a specific revision cycle.

The approved draft standard opens for Public Input with a date dependent upon the revision cycle assigned by the Standards Council.
Key Players Involved:

- Fire Departments and other Fire Service Agencies
- Radio Manufacturers
- Technical Experts
- Testing and Certifying Agencies (FCC, Industry Canada, UL, FM, CSA, SEI, Intertek, etc.)
- Standards Groups (TIA, APCO, etc.)
- Fire Service and Communications Industry Associations (IAFC, IAFF, NPSTC, APCO)

NFPA and the Technical Committee on Electronic Safety Equipment encourage and welcome the participation of interested individuals or organizations. Please contact the following for more information, or visit the NFPA 1802 Document Information page online at www.nfpa.org/1802:

Contacts:

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