



Designation: E2543 – 08 (Reapproved 2022)

# Standard Specification for Portable Air Heaters Used at Personnel Decontamination Stations and Shelters<sup>1</sup>

This standard is issued under the fixed designation E2543; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon ( $\epsilon$ ) indicates an editorial change since the last revision or reapproval.

## 1. Scope

1.1 This specification is used to standardize the portable air heaters used on personnel decontamination lines to insure the heaters provide sufficient heated air for personnel comfort before, during, and after the decontamination for as long as they are needed during the emergency.

NOTE 1—These heaters are not intended to be used for the decontamination for any other surface or material. Also, these heaters are intended to be portable and easy to use by first responders during a chemical, biological, radiological, nuclear, and explosive (CBRNE) event.

1.2 This specification contains a specification section and a test methods section so users need to refer to the section applicable to their needs when using this standard specification.

1.3 The values stated in SI units are to be regarded as standard. The values given in parentheses are for information only.

NOTE 2—The U.S. first responder personnel using the equipment manufactured under this standard are not likely to be familiar with SI units so English units need to be included as part of the system documentation and shown on control panels for any equipment sold to U.S. organizations.

1.4 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety, health, and environmental practices and determine the applicability of regulatory limitations prior to use.*

1.5 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

<sup>1</sup> This specification is under the jurisdiction of ASTM Committee E54 on Homeland Security Applications and is the direct responsibility of Subcommittee E54.01 on CBRNE Detection and CBRN Protection.

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## 2. Referenced Documents

- 2.1 *ASTM Standards*:<sup>2</sup>
  - D3195 Practice for Rotameter Calibration
  - E11 Specification for Woven Wire Test Sieve Cloth and Test Sieves
- 2.2 *NFPA Standard*:<sup>3</sup>
  - NFPA 70 National Electrical Code
- 2.3 *NIST Standard*:<sup>4</sup>
  - Recommended Practice Guide Special Publication 960-12 Stopwatch and Timer Calibrations

## 3. Terminology

### 3.1 Definitions:

3.1.1 *decontamination, n*—process of reducing or eliminating the hazards associated with chemical, biological, or radiological contamination.

3.1.1.1 *Discussion*—The means of decontaminating personnel, equipment, or areas include absorption, neutralization, weathering, and physical removal of the contaminant and hazards associated with nuclear, biological, or chemical (NBC) agents.

## 4. Classification

4.1 There will be no attempt to classify into categories the different types of portable air heaters that can fall under this specification since this specification will only address the minimum requirements these heaters shall satisfy.

## 5. Ordering Information

5.1 Personnel ordering portable air heaters using this specification as a basis for their order should be aware that this specification is the minimum requirement for these types of devices and any needs beyond these minimum requirements shall be stated in the request for quote.

<sup>2</sup> For referenced ASTM standards, visit the ASTM website, [www.astm.org](http://www.astm.org), or contact ASTM Customer Service at [service@astm.org](mailto:service@astm.org). For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

<sup>3</sup> Available from National Fire Protection Association (NFPA), 1 Batterymarch Park, Quincy, MA 02169-7471, <http://www.nfpa.org>.

<sup>4</sup> Available from National Institute of Standards and Technology (NIST), 100 Bureau Dr., Stop 1070, Gaithersburg, MD 20899-1070, <http://www.nist.gov>.