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## Standard Terminology for Homeland Security Applications<sup>1</sup>

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### 1. Scope

1.1 This terminology provides definitions and abbreviations of terms used in ASTM International standards pertaining to homeland security applications.

1.2 *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.*

### 2. Referenced Documents

#### 2.1 ASTM Standards:<sup>2</sup>

- D638 Test Method for Tensile Properties of Plastics
- D747 Test Method for Apparent Bending Modulus of Plastics by Means of a Cantilever Beam (Withdrawn 2019)<sup>3</sup>
- D790 Test Methods for Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials
- D882 Test Method for Tensile Properties of Thin Plastic Sheeting
- D883 Terminology Relating to Plastics
- D1129 Terminology Relating to Water
- D1424 Test Method for Tearing Strength of Fabrics by Falling-Pendulum (Elmendorf-Type) Apparatus
- D3384 Method of Test for Powder Resistance of Floor Polish Films
- D5219 Terminology Relating to Body Dimensions for Apparel Sizing
- E1301 Guide for Proficiency Testing by Interlaboratory Comparisons (Withdrawn 2012)<sup>3</sup>
- E1765 Practice for Applying Analytical Hierarchy Process

- (AHP) to Multiattribute Decision Analysis of Investments Related to Projects, Products, and Processes
- E2411 Specification for Chemical Warfare Vapor Detector (CWVD) (Withdrawn 2014)<sup>3</sup>
- E2413 Guide for Hospital Preparedness and Response (Withdrawn 2018)<sup>3</sup>
- E2458 Practices for Bulk Sample Collection and Swab Sample Collection of Visible Powders Suspected of Being Biological Agents and Toxins from Nonporous Surfaces
- E2520 Practice for Measuring and Scoring Performance of Trace Explosive Chemical Detectors
- E2521 Terminology for Evaluating Response Robot Capabilities
- E2541 Guide for Stakeholder-Focused, Consensus-Based Disaster Restoration Process for Contaminated Assets (Withdrawn 2019)<sup>3</sup>
- E2542 Specification for Portable Water Heaters Used at Personnel Decontamination Stations
- E2543 Specification for Portable Air Heaters Used at Personnel Decontamination Stations and Shelters
- E2601 Practice for Radiological Emergency Response
- E2639 Test Method for Blast Resistance of Trash Receptacles
- E2640 Guide for Resource Management in Emergency Management and Homeland Security (Withdrawn 2019)<sup>3</sup>
- E2668 Guide for Emergency Operations Center (EOC) Development (Withdrawn 2019)<sup>3</sup>
- E2677 Test Method for Determining Limits of Detection in Explosive Trace Detectors
- E2731 Specification for Materials to Mitigate the Spread of Radioactive Contamination after a Radiological Dispersion Event (Withdrawn 2018)<sup>3</sup>
- E2732 Practice for Responder Family Support Service
- E2739 Specification for Personnel Decontamination System to be Used During a Chemical Event (Withdrawn 2019)<sup>3</sup>
- E2740 Specification for Trash Receptacles Subjected to Blast Resistance Testing
- E2770 Guide for Operational Guidelines for Initial Response to Suspected Biological Agents and Toxins
- E2800 Practice for Characterization of *Bacillus* Spore Suspensions for Reference Materials
- E2831/E2831M Guide for Deployment of Blast Resistant Trash Receptacles in Crowded Places

<sup>1</sup> This terminology is under the jurisdiction of ASTM Committee E54 on Homeland Security Applications and is the direct responsibility of Subcommittee E54.92 on Terminology.

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<sup>2</sup> For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at 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> The last approved version of this historical standard is referenced on www.astm.org.

- E2842** Guide for Credentialing for Access to an Incident or Event Site
- E2851/E2851M** Specification for Ruggedness Requirements for HAZMAT Instrumentation
- E2852** Guide for Acquisition, Maintenance, Storage, and Use of Hazardous Material Detection Instrumentation
- E2866** Test Method for Determination of Diisopropyl Methylphosphonate, Ethyl Methylphosphonic Acid, Isopropyl Methylphosphonic Acid, Methylphosphonic Acid and Pinacolyl Methylphosphonic Acid in Soil by Pressurized Fluid Extraction and Analyzed by Liquid Chromatography/Tandem Ma
- E2885** Specification for Handheld Point Chemical Vapor Detectors (HPCVD) for Homeland Security Applications
- E2915** Guide for Emergency Operations Center (EOC) Management
- E2933** Specification for Stationary Point Chemical Vapor Detectors (SPCVD) for Homeland Security Applications
- E2951** Guide for Community Emergency Preparedness for Persons with Disabilities
- E2952** Specification for Air-Purifying Respiratory Protective Smoke Escape Devices (RPED)
- E3002** Practice for Assessing the Comparative Efficacy of Products Used for the Decontamination of Chemical Warfare Agents (CWAs) on Skin
- E3003** Practice for Body Armor Wearer Measurement and Fitting of Armor
- E3004** Specification for Preparation and Verification of Clay Blocks Used in Ballistic-Resistance Testing of Torso Body Armor
- E3005** Terminology for Body Armor
- E3062/E3062M** Specification for Indoor Ballistic Test Ranges for Small Arms and Fragmentation Testing of Ballistic-resistant Items
- E3068** Test Method for Contact Measurement of Backface Deformation in Clay Backing During Body Armor Testing
- E3078/E3078M** Practice for Conditioning of Hard Armor Test Items
- E3086** Practice for Creating Appliques for Use in Testing of Nonplanar Soft Body Armor Designed for Females
- E3095** Guide for Surrogate Materials for Field Evaluation of Nucleic Acid-Based On-Site Biological Assessment Technologies
- E3107/E3107M** Test Method for Resistance to Penetration and Backface Deformation for Ballistic-resistant Torso Body Armor and Shoot Packs
- E3108** Practice for Conformity Assessment of Protective Gloves Worn by Law Enforcement and Corrections Officers
- E3109** Specification for Protective Gloves Worn by Law Enforcement and Corrections Officers
- E3110/E3110M** Test Method for Collection of Ballistic Limit Data for Ballistic-resistant Torso Body Armor and Shoot Packs
- E3111/E3111M** Test Method for Ballistic Resistant Head Protection
- E3112/E3112M** Test Method for Ballistic-resistant Products and Shoot Packs
- E3113** Specification for Ballistic-resistant Vehicle Door Panels Used by Public Safety Agencies
- E3131** Specification for Nucleic Acid-Based Systems for Bacterial Pathogen Screening of Suspicious Visible Powders
- E3141/E3141M** Test Method for Ballistic Resistant Shields for Law Enforcement
- F1494** Terminology Relating to Protective Clothing
- F1731** Practice for Body Measurements and Sizing of Fire and Rescue Services Uniforms and Other Thermal Hazard Protective Clothing
- F2878** Test Method for Protective Clothing Material Resistance to Hypodermic Needle Puncture
- F2992/F2992M** Test Method for Measuring Cut Resistance of Materials Used in Protective Clothing with Tomodynamometer (TDM-100) Test Equipment
- 2.2 *Government Standards:*
- 18 U.S.C. 175** Prohibitions with Respect to Biological Weapons<sup>4</sup>
- 18 U.S.C. 178** Definitions<sup>4</sup>
- CPL 02-02-071** Technical Enforcement and Assistance Guidelines for Hazardous Waste Site and RCRA Corrective Action Clean-up Operations<sup>5</sup>
- DOD 4145.26 M** Department of Defense: DOD Contractors' Safety Manual for Ammunition and Explosives<sup>6</sup>
- FEMA US&R-2-FG** Urban Search and Rescue Response System Field Operations Guide<sup>8</sup>
- FIPS 201** Personal Identity Verification (PIV) of Federal Employees and Contractors<sup>7</sup>
- NIMS 2008** National Incident Management System<sup>8</sup>
- NIMS Guide 0002** National Credentialing Definition and Criteria<sup>8</sup>
- 2.3 *IAEA Standards:*<sup>9</sup>
- IAEA 2006** International Atomic Energy Agency Annual Report 2006
- 2.4 *NCRP Standards:*<sup>10</sup>
- NCRP Report 165** Responding to a Radiological or Nuclear Terrorism Incident: A Guide for Decision Makers
- 2.5 *NFPA Standards:*<sup>11</sup>
- NFPA 472** Standard for Competence of Responders to Hazardous Materials/Weapons of Mass Destruction Incidents
- NFPA 1561** Standard on Emergency Services Incident Management System and Command Safety

<sup>4</sup> Available from U.S. Government Printing Office, Superintendent of Documents, 732 N. Capitol St., NW, Washington, DC 20401-0001, <http://www.access.gpo.gov>.

<sup>5</sup> Available from Occupational Safety and Health Administration (OSHA), 200 Constitution Ave., NW, Washington, DC 20210, <http://www.osha.gov>.

<sup>6</sup> Available from the Defense Technical Information Center, 8725 John J. Kingman Road, Suite 0944, Ft. Belvoir, VA 23060-6128.

<sup>8</sup> Available from Federal Emergency Management Agency (FEMA), 500 C St., SW, Washington, DC 20472, <http://www.fema.gov>.

<sup>7</sup> Available from National Institute of Standards and Technology (NIST), 100 Bureau Dr., Stop 1070, Gaithersburg, MD 20899-1070, <http://www.nist.gov>.

<sup>9</sup> Available from International Atomic Energy Agency, Vienna International Centre, PO Box 100, 1400 Vienna, Austria, <https://www.iaea.org>.

<sup>10</sup> Available from National Council on Radiation Protection and Measurements, 7910 Woodmont Ave., Suite 400, Bethesda, MD 20814-3095, <http://www.ncrponline.org>.

<sup>11</sup> Available from National Fire Protection Association (NFPA), 1 Batterymarch Park, Quincy, MA 02169-7471, <http://www.nfpa.org>.

**NFPA 1600 Standard on Disaster/Emergency Management and Business Continuity Programs**

2.6 *NIJ Standards*:<sup>12</sup>

**NIJ 0101.06 Ballistic Resistance of Body Armor**

2.7 *ISO/IEC Standards*:<sup>13</sup>

**ISO/IEC 17000 Conformity assessment – Vocabulary and general principles**

**ISO/IEC 17025 General Requirements for the Competence of Testing and Calibration Laboratories**

**ISO Guide 34 General Requirements for the Competence of Reference Material Producers**

2.8 *AOAC Standards*:<sup>14</sup>

**SMPR 2010.003 Standard Method Performance Requirements for Polymerase Chain Reaction (PCR) Methods for Detection of *Bacillus anthracis* in Aerosol Collection Filters and/or Liquids**

### 3. Significance and Use

3.1 In this terminology, definitions used in other ASTM International standards are indicated by following the definition with the designation of the standard.

### 4. Terminology

#### 4.1 Definitions:

**30-minute Acute Exposure Guideline Levels for Selected Airborne Chemicals, (30-min AEGL value), *n***—represent exposure limits for the general public and are applicable to emergency exposure periods for 30 minutes. **E2885 – 13**  
**E2933 – 13**

**abrasion, *n***—the wearing away of any part of a material by rubbing against another surface. **E3109 – 18** from **D3384**

**abstain, *v***—robot manufacturer or designated operator declaring not to perform a particular test or not to have the test result disseminated. **E2521 – 16**

**accessory, *n***—a body armor component that is detachable or removable from the body armor and is intended to provide extended area of coverage protection against threats that may include ballistic threats, stabbing, fragmentation, blunt impact, or a combination of threats. **E3005 – 18**

*DISCUSSION*—Accessories are typically attachments to tactical body armor providing protection to areas not covered by the vest, such as the shoulders, upper arms, neck, sides, pelvis, and groin. See *tactical body armor*. See *vest*.

**accessory, *n***—item that may be provided with an RPED that does not affect its ability to meet the requirements of this specification. **E2952 – 17**

**accreditation, *n***—third-party attestation related to a conformity assessment body conveying formal demonstration of its

competence to carry out specific conformity assessment tasks. **E3108 – 18** from **ISO/IEC 17000**

**accuracy, *n***—closeness of agreement between a test result and the accepted reference values. **E3131 – 17**  
**E3095 – 17** from **E1301**

**advertised protective area, *n***—an area of a glove stated by the supplier as having specific protection. **E3109 – 18**

**AEGL-1, *n***—airborne concentration (expressed as ppm or mg/m<sup>3</sup>) of a substance above which it is predicted that the general population, including susceptible individuals, could experience transient health effects. **E2885 – 13**  
**E2933 – 13**

**AEGL-2, *n***—airborne concentration (expressed as ppm or mg/m<sup>3</sup>) of a substance above which it is predicted that the general population, including susceptible individuals, could experience irreversible or other serious, long-lasting adverse health effects or an impaired ability to escape. **E2885 – 13**  
**E2933 – 13**

**AEGL-3, *n***—airborne concentration (expressed as ppm or mg/m<sup>3</sup>) of a substance above which it is predicted that the general population, including susceptible individuals, could experience life-threatening health effects or death. **E2885 – 13**  
**E2933 – 13**

**affected stakeholder, *n***—any individual, group, company, organization, government, tribe, or other entity which may be directly affected by the outcome of the specific restoration planning process. **E2541 – 10**

**affiliation, *adj***—the association of a non-credentialed individual or group of individuals under the supervision of an AHJ-compliant credentialed responder for the purpose of gaining access to accomplish a specific incident or event mission. **E2842 – 14**

**agreements, *n***—advance written (preferred) and/or oral arrangements between and among entities that provide a mechanism to share resources and obtain assistance. **E2640 – 10** from **NFPA 1600/NIMS 2008**

**air-purifying respiratory protective smoke escape device, RPED, *n***—air-purifying respirator used to protect a person while escaping from a fire by removing certain contaminants of fire-generated products of combustion from the inhaled air. **E2952 – 17**

**ALARA (as low as reasonably achievable), *n***—a principle of radiation protection philosophy that requires that exposures to ionizing radiation should be kept as low as reasonably achievable, economic and social factors being taken into account; the ALARA principle is satisfied when the expenditure of further resources would be unwarranted by the reduction in exposure that would be achieved. **E2601 – 15** from **NCRP Report No. 165**

<sup>12</sup> Available from National Institute of Justice (NIJ), 810 7th St., NW, Washington, DC 20531, <http://nij.gov>.

<sup>13</sup> Available from International Organization for Standardization (ISO), ISO Central Secretariat, BIBC II, Chemin de Blandonnet 8, CP 401, 1214 Vernier, Geneva, Switzerland, <http://www.iso.org>.

<sup>14</sup> Available from AOAC International, 2275 Research Blvd., Suite 300, Rockville, MD 20850-3250, <http://www.aoac.org>.