ESD Standards by Applications

**ANSI/ESD S20.20 – 2014**
ESD Association Standard: Provides guidelines to protect electrical and electronic parts, assemblies and equipment from electrostatic discharge.
- Handles Class-0
  - ANSI 20.20 (< 20 volts) — in addition to compliance with Class-0 protocols
- Does Not Handle Class-0
  - ANSI 20.20 (100 volt maximum)

**FAA STD 019f**
Standard for lightning protection, grounding, bonding and shielding requirements.

**MOTOROLA R56**
Public safety and telecommunications standards and guidelines for the installation of equipment, infrastructure, and facilities for communications centers.

**ATIS-0600321**
Telecommunications industry standard for applications where people access a computer keyboard while continually wearing a headset.

**IBM Data Center Recommendations**
IBM-recommended guidelines to minimize static-electricity buildup in a data centers. Safety recommendation: minimum floor resistance >150,000 ohms ($1.5 \times 10^5$).

**Applications**
- Data Centers
- Server Rooms

**NFPA 99 National Fire Protection Association – Defunct Standard for Conductive Flooring**
Establishes criteria for health care services to minimize the hazards of fire, explosion, and electricity.

**Applications**
- No longer valid

**ESD Test Methods**
- ANSI/ESD STM7.1-2013
  Tests resistive properties of flooring materials.
- ANSI/ESD STM97.1-2015
  Measures the electrical system resistance of floor materials in combination with persons wearing static-control footwear.
- ANSI/ESD STM97.2-2016
  Measures the voltage on a person in combination with floor materials and static control footwear, shoes or other devices.
- ASTM F150-06(2013)
  Tests electrical resistance of resilient flooring.
- AATCC 134
  Electrostatic Propensity of Carpets. Standard carpet industry test, uses laboratory simulation to assess static generation when a person walks across the carpet.

**Mil STD 1686**
(converted to ANSI/ESD S20.20)
The parent document for all ESD Association standards and is the main reference for Auditing an ESD Control Program.

**Applications**
- Anyone auditing an ESD program