
TABLE OF CONTENTS

1.0 PURPOSE, SCOPE AND APPLICATION	1
1.1 PURPOSE	1
1.2 SCOPE	1
1.3 APPLICATION	1
2.0 REFERENCED PUBLICATIONS.....	1
3.0 DEFINITIONS.....	2
4.0 SAFETY REQUIREMENTS	2
4.1 PERSONNEL SAFETY	2
4.2 ELECTRICAL.....	2
4.3 OZONE	2
4.4 RADIOACTIVE.....	2
4.5 X-RAY	2
4.6 INSTALLATION.....	3
5.0 TEST FIXTURE AND INSTRUMENTATION	3
6.0 SPECIFIC REQUIREMENTS FOR EQUIPMENT CATEGORIES.....	5
6.1 ROOM IONIZATION.....	6
6.2 LAMINAR FLOW HOOD IONIZATION	8
6.3 WORKSURFACE IONIZATION.....	10
6.4 COMPRESSED GAS IONIZERS – GUNS AND NOZZLES	14
 ANNEXES	
Annex A (Normative): Method of Measuring the Capacitance of an Isolated Conductive Plate .	15
Annex B (Informative): Standard Test Method for the Performance of Ionizers	18
Annex C (Informative): Bibliography	24
Annex D (Informative): ANSI/ESD STM3.1-2015 Revision History	25
 TABLES	
Table 1: Test Setups and Test Locations/Points (TP)	6
Table 2: Example Measurement Data	16

FIGURES

Figure 1: Charged Plate Monitor Components for Non-Contact Plate Measurement 4
Figure 1A: Charged Plate Monitor Components for Contact Plate Measurement 4
Figure 2: Charged Plate Detail for Non-Contact CPM..... 4
Figure 2A: Charged Plate Detail for Contact CPM..... 5
Figure 3: Test Locations for Room Ionization - AC Grids and DC Bar Systems 7
Figure 4: Test Locations for Room Ionization - Single Polarity Emitter Systems 7
Figure 5: Test Locations for Room Ionization - Dual DC Line Systems 8
Figure 6: Test Locations for Room Ionization - Pulsed DC Emitter Systems 8
Figure 7: Test Locations for Vertical Laminar Flow Hood - Top View 9
Figure 8: Test Locations for Vertical Laminar Flow Hood - Side View 10
Figure 9: Test Locations for Horizontal Laminar Flow Hood - Top View 10
Figure 10: Test Locations for Horizontal Laminar Flow Hood - Side View 10
Figure 11: Test Locations for Benchtop Ionizer - Top View..... 12
Figure 12: Test Locations for Benchtop Ionizer - Side View..... 12
Figure 13: Test Locations for Overhead Ionizer - Top View 13
Figure 14: Test Locations for Overhead Ionizer - Side View 13
Figure 15: Test Locations for Compressed Gas Ionizer (Gun or Nozzle) - Side View 14