

REGIONAL TUTORIALS

ESD Basics for the Program Manager

How To's of In-Plant ESD Auditing and Evaluation Measurements

May 16-17, 2012

Crowne Plaza Hotel and Suites, Bloomington, MN
Continental breakfast, lunch, and refreshments provided

ESD BASICS FOR THE PROGRAM MANAGER

MAY 16, 2012

Instructor: Stephen Halperin, Stephen Halperin & Associates

This presentation is a comprehensive introduction to the fundamentals of ESD causes and control. ESD Basics is a full-day seminar consisting of three presentation sections. Part 1 includes an overview of ESD impact on industry, detailed explanations of Charge Generation, Field Measurement, the role of Capacitance and Voltage, Charge Measurement and Charge Decay. Part 2 focuses on general explanations and illustrations of Device Failure Mechanisms, including Human Body Model, Charge Device and Field Induction Modes, and explains the Machine Model. Part 3 is concerned with protecting ESD sensitive devices & assemblies, defining the Electrostatic Protected Area (EPA), understanding various ESD control elements and material selection, and includes a brief introduction to ANSI/ESD S20.20 ESD Program Development criteria. Several demonstrations and opportunities for discussion make this an interesting introduction to ESD causes and control. No previous ESD experience necessary.

This class is part of the Program Manager Certification curriculum. Details on Professional Certification offered by ESDA are on our website at www.esda.org/certification.html.

HOW TO'S OF IN-PLANT ESD AUDITING AND EVALUATION MEASUREMENTS

MAY 17, 2012

Instructor: Stephen Halperin, Stephen Halperin & Associates

This program reviews the evaluation and periodic verification (audit) measurement procedures for the technical requirements specified in the ANSI/ESD S20.20 ESD program development standard. Detailed explanation of instruments, fixtures, and accessories function and usage are provided. Then, the details of "How to" measure are explained and demonstrated. Measurements include those listed in Table 1: Grounding/Equipotential Bonding Requirements; Table 2: Personnel Grounding Requirements; and Table 3: EPA/ESD Control Items. These recommended measurement procedures confirm the proper operation and use of ESD control products and materials selected as part of a facility's S20.20 ESD control program.

Some sample topics covered in this course are:

- ANSI/ESD S20.20 Technical Control Requirements
- Program Manager's Approach to Instrumentation and Applications
- Testing Ground Circuits and Assessing Connections
- Essential Resistance Measurement Procedures and Concerns
- Electrostatic Field and Voltage Measurements
- Personnel Grounding Considerations vs. ESD Control Points
- Product Installation Baseline Measurements
- Evaluation, Acceptance, and Audit Procedures for: Ground Systems, Floors, Worksurfaces, Equipment, Personnel Grounding, Garments, Materials, Production Aids, Packaging, and Ionization Devices
- Electrostatic Analysis Measurements including Worksurface Suppression, Footwear/Flooring, and Ionization Decay

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Co-sponsored by the North Central Chapter ESD Association <http://www.esdnorthcentral.org>

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ABOUT THE INSTRUCTOR

Stephen Halperin has over 35 years of industrial ESD experience and is known internationally for his work throughout the industry in process evaluation, control of sensitive environments, measurement and test innovations, standards, professional certification, education, and his many contributions to the electrostatics industry and ESD Association. He served two terms as ESDA president, and chaired Standards, Local Chapter Development, Education, and Professional Certification committees. Mr. Halperin is a recipient of the Symposium's Outstanding Paper Award for his original work in Facility Evaluation, the Association's Outstanding Contribution Award for his life's work on behalf of industry and the Joel Weidendorf Memorial Award for his extensive contributions to ESD standards and its organizational development, the ESDA's Founder's Award for his work in the growth and development of the ESD Association. Mr. Halperin speaks, educates and consults internationally, participates in IEC standards activities, and is a Chief ESD coordinator in Japan's growing RCJ ESD education and certification system. He formed Stephen Halperin & Associates (SH&A - 1983), an international electrostatic consulting firm, and established Prostat Corporation (1992) for the design and manufacture of high performance electrostatic analysis and measurement instruments. Mr. Halperin has delivered several technical papers on the measurement and control of ESD and authored many articles on ESD related subjects.



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REGISTER ONLINE AT WWW.ESDA.ORG

First Name: _____ Last Name: _____

Company Name: _____

Street: _____ City: _____

State/Province: _____ Country _____ Zip/Postal Code: _____

Address is (please circle the one that applies) Home or Company

Phone: _____ Fax: _____ E-mail: _____

Course Selection

- March 16, 2012 ESD Basics for the Program Manager
 March 17, 2012 How To's of In-Plant ESD Auditing and Evaluation Measurements

	Cost on or before 4/4/12		Cost after 4/4/12	
	Members	Non-Members	Members	Non-Members
1 Tutorial (16th or 17th)	\$510	\$610	\$710	\$710
Both Tutorials (2 Days)	\$1020	\$1220	\$1420	\$1420

Register
online at
www.esda.org

Cancellation & refund requests will be honored if received in writing no later than April 4th 2012, and are subject to a \$50 fee. Any other approved dispositions will also be assessed a \$50 fee.

Payment Information

Payment is required at time of registration. Only checks drawn in U.S. currency on a U.S. bank that is a member of the Federal Reserve will be accepted; make checks payable to ESD Association. Visa®, Mastercard®, and American Express® and Discover® are accepted.

Amount enclosed \$ _____ Check Credit Card

Credit card type: Visa® Mastercard® American Express® Discover®

Credit card number: _____ Expiration date: _____

Name on card: _____ Security code: _____

Cardholder's signature: _____

Accommodations

Crowne Plaza Hotel and Suites
Three Appletree Square, I-494 & 34th Avenue (Exit 1)
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www.cpsuitesmsp.com

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