

FC261: Electrical Fields - Practical Considerations for the Factory

June 14, 2018 8:30 a.m. - 12:00 p.m.

David E. Swenson, Affinity Static Control LLC



ANSI/ESD S20.20 recommends that process essential insulators with a measured electrical field strength of >2000 volts at 1 inch should be kept a minimum of 12 inches from ESD susceptible items. In addition, for close proximity or contact, the standard requires that insulators have an electric field of <125 volts at 1 inch. Just what are the practical considerations of this statement? What is the size of a charged object that imposes a risk? The goal of this tutorial is to show, by demonstration, the field strength and resulting induction ability from different sized objects. The audience should gain a practical perspective of size and distance as related to electrical fields and induction and be able to relate the information to their own factory situations.

Practical Applications of Ionization

June 14, 2018 1:00 p.m. - 4:30 p.m.

David E. Swenson, Affinity Static Control LLC

Ionization is a powerful tool in the toolbox of an ESD control practitioner. Our half-day tutorial, "Ionization Issues and Answers for the Program Manager" goes into depth about the physics of ionization, and general applications. This tutorial builds on the fundamentals and provides added information about applications of ionization that go beyond those mentioned in the original tutorial. The introduction part of this tutorial begins with a review of the physics of ionization before entering the discussion of applications. Ionization is used in a wide variety of industrial applications to reduce charge on plastic and paper films, extrusion processes, pharmaceutical and other powders, petrochemical processing, printing and graphic arts, as well as the wide variety of electronic component and equipment production processes. Numerous demonstrations will help demonstrate the power of ionization to reduce charges on materials. In addition, it is necessary to understand the limitations of ionization and recognize where it is useful and where it is not.

About the Instructor: David E. Swenson retired in 2003 after 35 years of service from 3M. While at 3M he had responsibility for new packaging material development and application, training of 3M personnel worldwide and providing application assistance to users of static control products globally with particular emphasis on Asia Pacific and Japan. Dave and his wife Geri established a new company, Affinity Static Control Consulting, LLC in 2003.

Dave has been a member of the ESD Association since 1984 and has served in many capacities including 1997 Symposium General Chair and president of the Association in 1998 and 1999 and again in 2008 and 2009. He was re-elected to the Board of Directors for a 5th term from 2014 to 2016 and is currently appointed to the Board to assist with technical inquiries. Dave was presented with the highest award of the ESD Association, the "Outstanding Contributions Award" in 2002, the Standards Committee "Joel P. Weidendorf Memorial Award" in 2004 and the Association "Edward G. Weggeland" Memorial Award in 2014. He is a member of the Standards Committee serving several Working Groups and the ANSI/ESD S20.20 Standard Task Team. Dave also serves as Treasurer and Information Liaison of the Texas Chapter of the ESD Association; he is a member of the Electrostatic Society of America, IMAPS, the UK Institute of Physics and is a US Expert to IEC TC101, Electrostatics. In addition, he is the convener of Joint Working Group 13 between TC101 and TC40 (Capacitors and Resistors).

Setting the Global Standards for Static Control!

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2018 EOS/ESD Association, Inc. Tutorials

June 14, 2018

EOS/ESD Association, Inc., 7900 Turin Rd. Bldg. 3, Rome, NY 13440, USA

Lunch and refreshments provided

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Course Selection

- FC261: Electrical Fields - Practical Considerations for the Factory and Practical Applications of Ionization** \$510 / non-Members \$610

Cancellation & refund requests will be honored only if received in writing no later than April 30, 2018, and are subject to a \$50 fee. Any other approved dispositions will also be assessed a \$50 fee.

Register online at <http://www.cvent.com/d/8tq4x7>

Other forms of payment Contact:

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