

### ***LIGHTNING PROTECTION SYSTEM DESIGN***

ALLTEC Corporation offers complete engineering services for conventional lightning protection point-discharge systems and ESE Systems based on the standards set forth by Underwriters Laboratory, the National Fire Protection Association, the Lightning Protection Institute, the Institute of Electrical & Electronic Engineers and the American National Standards Institute. ALLTEC is also an accredited member of these organizations as well as certified LPI Master Designers and Installers. Our engineering department uses the above-mentioned standards to design systems for commercial, industrial and residential structures. Our engineering staff is one of the most experienced in the industry and is continually striving to further our innovations.

### ***GROUNDING SYSTEM DESIGN***

ALLTEC's highly trained and experienced engineering staff provides customized grounding designs and specifications for virtually any application. Our design engineers utilize information gathered from pre-installation testing to create a grounding system that is specific to the site parameters and takes into account the soil resistivity of the area, the geographical size of the site and the typical local atmospheric conditions at the facility throughout the year. Taking all of these considerations into account, our design engineers utilize CDEGS® Grounding Analysis Software to develop a system to meet each client's specifications. Our design engineers then use AutoCAD® to draft the construction prints for installation. By utilizing the pre-installation testing results and the CDEGS® program, our design engineers can model a grounding system to meet or exceed your grounding resistance specifications in any type of terrain or atmospheric conditions.

### ***TESTING SERVICES***

When designing or repairing a grounding system, whether for an electrical service system or a lightning protection system, it is important to know the soil conditions and the condition of any existing grounding systems, before any installations or modifications take place. ALLTEC's engineers and field technicians are available to perform complete ground testing services worldwide. Our field technicians perform 3-point fall of potential tests, 4-point soil resistivity tests, clamp-on resistance tests of grounding electrodes, as well as site survey reports. All of our field crews are equipped with the latest testing equipment. Our extensive experience in the ground testing and design field enables us to define exactly what grounding installations and improvements will work best for your site. This eliminates trial and error and reduces the overall cost of grounding systems by designing only what is needed to meet your specifications. ALLTEC can also provide independent third party testing services when required for pre-construction and post-construction testing.