Grounding System Design:

Lyncole's engineers are capable of designing even the most extensive grounding system. We utilize a modulated computer based calculation program that takes the results of Four-Point Soils Resistivity Tests and creates a multi-layered soil model. Our engineers then create a three dimensional representation of the grounding system which the computer combines with the layered soil model to predetermine the achieved resistance to earth. We have used this program for more than twelve years while supporting cellular communications, medical facilities, manufacturing plants, and a myriad of other industries. Whether the client prefers electrolytic rods, such as the XIT^{Ò} Grounding System, or driven rods, Lyncole has the engineering expertise to provide superb, site specific grounding system designs.

Grounding System Testing:

Lyncole's engineering team utilizes the most current and state of the art testing equipment to test grounding systems around the world. With over 50 years of combined engineering experience, Lyncole achieves valid testing results in some of the most difficult situations. Understanding the benefits and drawbacks of both the Fall-of-Potential and Clamp-on tests, our engineers evaluate the grounding system to determine the most accurate method of testing. If the results of the test are inconclusive or if the resistance to earth is higher than the clients goal, a series of Four Point soils resistivity tests are performed and grounding system modifications are designed and presented to the client.

Facility Surveys and Audits:

Lyncole's engineers use the National Electrical Code, NFPA-780, Motorola R-56, Telcordia, and client specific standards to perform a wide range of surveys and audits. Our experience includes facility types such as college dorms, fence manufacturing, telecommunications central offices and cellular sites, hospitals, firehouses, and many more. These surveys include audits of lightning protection, AC and DC surge protection, electrical systems, inside/outside plant grounding as well as power quality audits. The client is provided with a detailed report consisting of observation and recommendations, explanatory photographs, field test data, AutoCAD drawings, and a grounding system design if necessary. Many of our customers hire Lyncole to either supervise their maintenance crews or bring in experienced contractors to make the recommended changes.

Ground Potential Rise Studies (GPRs):

Lyncole also performs GPR studies for clients when they are installing a facility grounding system in or near a high voltage environment. These studies evaluate the fault clearing times, available fault current, grounding system resistance to earth, and other factors to calculate the 300-volt line and step/touch potentials. If these potentials are higher than national safety standards, Lyncole engineers will continue these calculations in order to determine what measures are required to make the site safe for workers and the public alike.

Training Courses

Lyncole provides valuable and private training courses in a wide range of topics. Our public course is 16 hours of instruction and covers soil resistivity and grounding system resistance testing, grounding system design, communications grounding, bonding, lightning protection, surge protection, and national electrical code. Following completion of these courses the attendee receives a completion certificate and qualifies for 1.8 continuing education units and 16 BICSI credits. Our courses can be tailored to fit any industry and our instructors have given private courses throughout the country and around the world.