Clyde Bergemann Power Group designs and supplies Air Pollution Control (APC) equipment and services for a wide variety of applications and customers. A leading supplier since 1946 with over 1500 installations worldwide Clyde Bergemann has enabled customers to operate their facilities in compliance with regulatory requirements and, depending upon the application, recover valuable by-products. Clyde Bergemann has one of the largest installed bases of electrostatic precipitators in North America. An electrostatic precipitator (ESP) is a high efficiency, particulate removal device that collects suspended particulate matter from high temperature combustion or process gas streams. The electrostatic precipitator works by first charging the particulate matter entrained in the gas stream with high voltage discharge electrodes and then electrostatically influencing those particles to oppositely charged collecting plates within the ESP.

Electrostatic Precipitator

The Clyde Bergemann precipitator incorporates state-of-the-art design elements consisting of RIGITRODE® discharge electrodes, MODULOK™ collecting plates, OPTI-RAP™ rapping systems and DOCIII™ microprocessor based automatic voltage controls to provide unsurpassed emissions performance and equipment operating characteristics.

RIGITRODE® discharge electrodes have successfully demonstrated excellent performance characteristics over a wide variety of applications and performance requirements. The electrode is fabricated from tubing with uniformly spaced corona studs welded along the length of the electrode to optimize the voltage/current relationship required for each application. Assembled into the precipitator as a rigid structural matrix, the system has sufficient stiffness to resist displacement due to electrical forces and lateral forces resulting from over-full hoppers.

The MODULOK™ collecting electrode was specifically developed to achieve exact plate alignment and structural integrity necessary for today's challenging applications, yet still provide excellent rapping response for dislodging the collected particulate. Extensive testing and broad application have demonstrated its superior ability to transmit rapping energy and its cleanability under all types of service and plate heights. The plate is comprised of a series of roll formed modules with interlocking edges that snap securely together for a
strong mechanical bond. The design requires no field assembly and prevents deformation and oil-canning which occurs when individual panels are welded together along their vertical height.

Clyde Bergemann can offer a variety of rapping system options. In each case, the entire rapping system is located outside the gas stream and can achieve plate acceleration in excess of 200g.

Clyde Bergemann offers an array of microprocessor based controls for its precipitator system. The DOCII™ automatic voltage power controller and the OPTI-RAP™ rapping system controller are the latest in a series of state-of-the-art features.