

## The Precipitators

The coal we burn at the Power Station is low in ash and sulphur. Burning coal creates dust (Ash). Instead of releasing all the dust into the atmosphere, we clean the gas by passing it through a number of electrostatic dust precipitators. The precipitator is an electrical purification device, which is very good at removing fine particles like dust from gases. Put simply, the precipitators separate the solid particles from the gases.

This is accomplished by applying a very strong negative charge of about 60,000 volts to the flue gases exiting the boiler as they flow past large metal plates in the precipitator which have a very strong positive charge.

The airborne dust and ash are attracted to the opposite charge in the plates like a magnet grabbing iron filings. The large metal plates provide a total collecting surface of 21,000 square metres in the three precipitators available for each boiler.

The plates are then rapped (shaken) and the dust falls off. A motor is hooked up to a timer that regularly strikes, or raps, the plates with a weighted hammer. The dust is collected from the bottom of the precipitators, and disposed off. It's a pretty simple process really and one which is very important to the environment.