



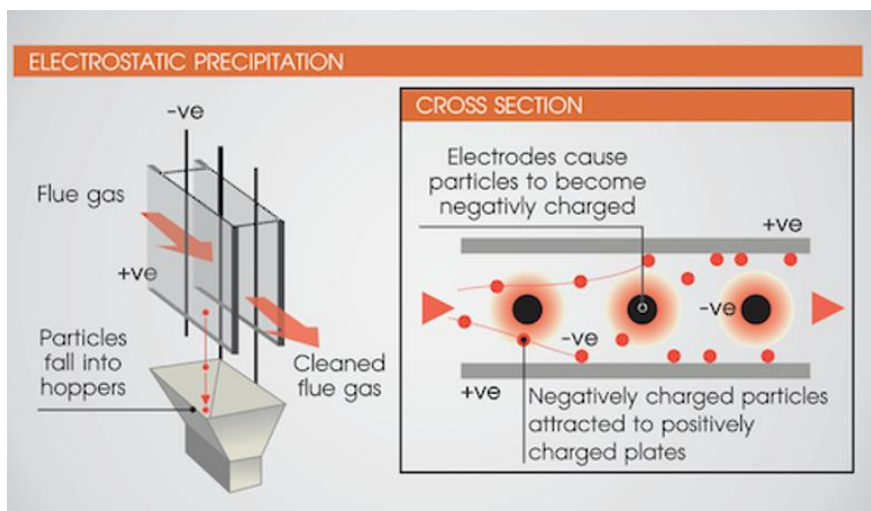
**Building
something
great**

What is an electrostatic precipitator (ESP)?

On rare occasions you may see a plume being released into the air above the cement works. This is caused by an electrostatic precipitator trip.

What is an electrostatic precipitator (ESP)?

An electrostatic precipitator is a type of filter that uses static electricity to remove impurities from exhaust gases before they exit the stacks. Precipitators function by electrostatically charging particles in the gas stream. The charged particles are attracted to and deposited on plates or other collection devices. The treated gas then passes out of the precipitator and through a stack to the atmosphere. When enough particles have accumulated on the collection devices, they are shaken off the collectors by mechanical rappers. The particulates fall into a hopper at the bottom of the unit and are then taken away into the manufacturing process.



What is an ESP trip?

As described above, the ESP uses high electric current to separate the dust particles from the gases. CO is a flammable gas and it can catch fire if it is exposed to electric sparks. If gases contain CO at a certain level the current in the ESP automatically is switched off for a very short period of time to protect against any potential for a significant explosion of CO gas.

The site is currently working on a modification to replace the ESP with new filter technology, this process requires Departmental approval, but it is something our team is currently working on.