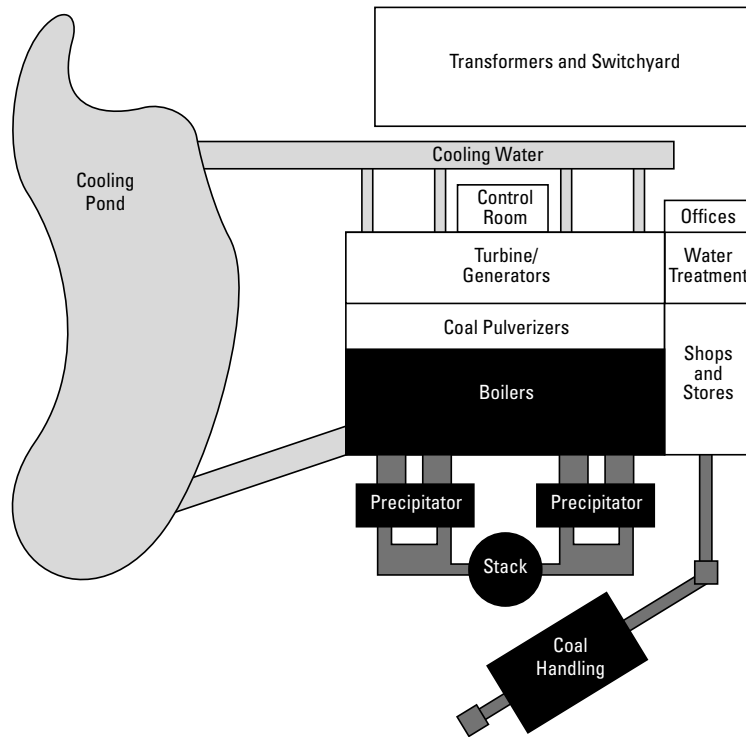


## Production Process

Name \_\_\_\_\_



### COAL PLANT

The coal plant is a system of crushers and conveyors, which prepare and deliver the coal to the boilerhouse.

### COAL PULVERIZERS

Coal bunkers supply coal for firing the boilers. The coal is fed to the pulverizers where it is ground to a fine powder. This pulverized coal is then blown into the furnace with hot air, providing the fire for generating the steam in the boiler.

### BOILERS

The boiler converts water into steam (540°C).

### PRECIPITATORS & STACKS

The coal burned in the boilers produces two forms of ash. The heavier ash, which collects in the bottom of the boiler is called “bottom ash” and lighter ash is known as “flyash”.

## Production Process

### TURBINE/GENERATORS

Each turbine has rows of blades attached to a shaft, and as steam passes through the turbine it pushes on the blades and causes the shaft to rotate.

### PUMPHOUSE & CONDENSERS

The steam from the turbines is collected and converted back into water by cooling it in the condensers. From the condensers, the water is pumped back to the boilers so that it can be re-used to make more steam.

### SWITCHYARD

The electricity coming from the generators is increased to 240,000 volts using large transformers just outside the wall of the plant. This high voltage electricity then travels through the switchyard and out along power lines to cities and towns throughout the province.

