

## Building a Nuclear Reactor - Information Cards

Made of very strong structural material, it houses the reactor core where uranium undergoes fission. It also has openings for the cooling loop to operate: cold water enters and, after being boiled by the heat of the reactor, exits as steam.

These slide up and down inside the reactor core and control the speed of the nuclear reaction. They do this by absorbing neutrons, so there are fewer neutrons to hit the uranium atoms. This slows down the chain reaction.

Electrical wires that transport electrical energy created at the plant to distribution networks for delivery to electricity customers.

Pure cold water that moves through the reactor core absorbing heat. This water boils and turns into steam, which is used to power the turbine generator.

Where the uranium undergoes a chain reaction fission process, which is managed by the control rods.

Is powered by steam boiled from the heat of the reactor in the cooling loop, generating electrical energy from thermal energy.

Uranium that is formed into ceramic pellets about the size of the end of a finger. These are inserted into fuel rods within the reactor.

Cools down the hot steam back into liquid water. This means the water can be used again in the cooling loop.