

How is Electricity Generated from Nuclear Power Plant

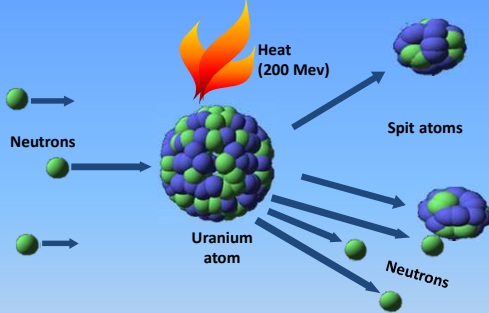
Dorra LAJNEF

TUNSIAN COMPANY OF ELECTRICITY AND GAS. Technical feasibility study unit. TUNIS. TUNISIA

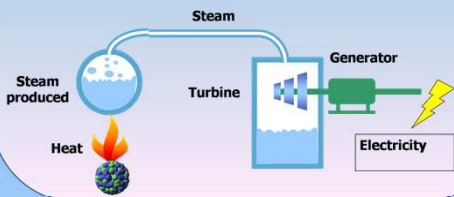
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How does nuclear power plant work?

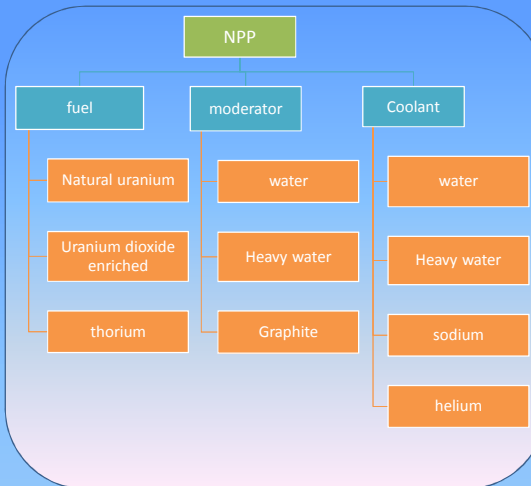
1. Nuclear energy comes from fission



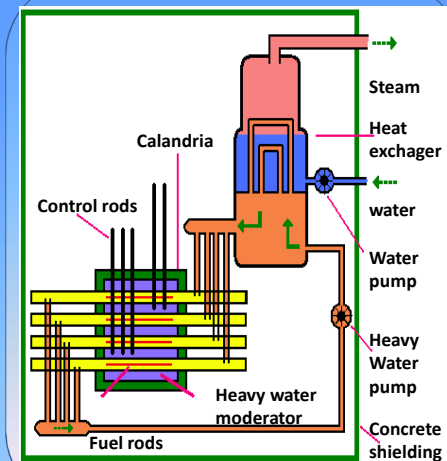
2. Heat Produces Steam, Generating Electricity



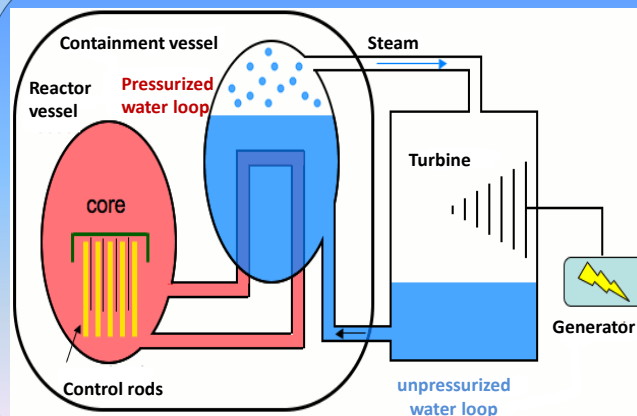
Classification of nuclear power plants



CANDU reactors



Pressurized Water Reactor



Environmental Impacts

Air emission

Nuclear power plants do not emit [carbon dioxide](#), [sulfur dioxide](#), or [nitrogen oxides](#) as part of the power generation process. However, fossil fuel emissions are associated with the uranium mining and uranium enrichment process as well as the transport of the uranium fuel to and from the nuclear plant.

Water Resource Use

Nuclear power plants use large quantities of water for steam production and for cooling.

Nuclear waste

One gram of uranium yields about as much energy as a ton of coal or oil - it is the famous "factor of a million". Nuclear waste is correspondingly about a million times smaller than fossil fuel waste, and it is totally confined.

Energy equivalents

1 uranium fuel pellet has as much energy available as



or

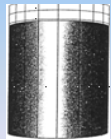


3 Barrels of oil

1 ton of coal



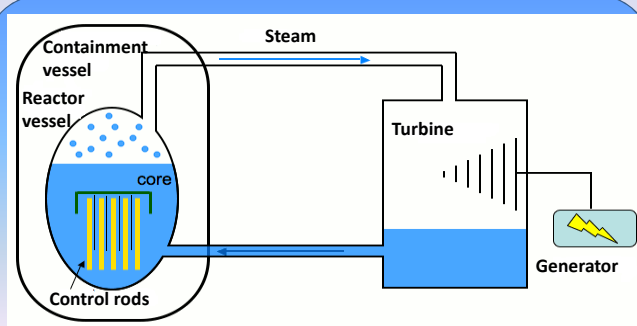
or



1 cord of wood

17000 cubic feet of natural gas

Boiling water reactor



1000 MW of electricity uses



150 tons of uranium



2,100,000 tons of coal



10 millions barrels of oil