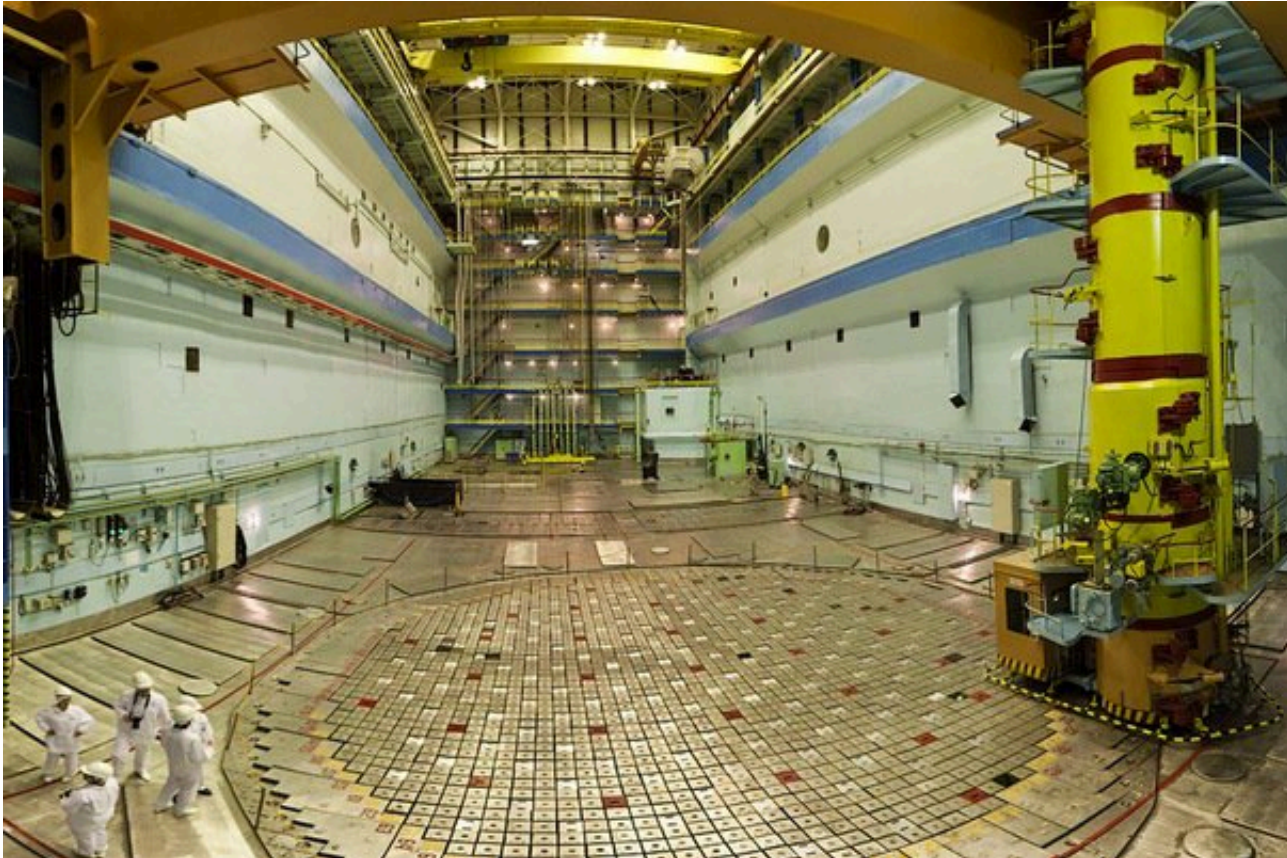


What stages does uranium undergo in the course of its transformation into a nuclear fuel?

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The first stage is uranium ore concentration. After crushing, milled ore is dissolved in a chemical solution, then precipitated concentrated uranium salt is dried to obtain dry uranium concentrate. The next stage of the enrichment process is refining (a fine chemical process of refining from unacceptable impurities).

Its product – pure uranium oxide is submitted to conversion (fluoridation). The gas produced at this stage – uranium hexafluoride (UF_6) - is then transported in special containers to the processing plant for U-235 isotope enrichment (from the natural 0.71% to the level required for each type of fuel).

At the final stage enriched uranium is converted into pure uranium dioxide and then pressed into fuel pellets by methods of powder metallurgy. The concluding stage of fuel production is stacking fuel pellets into tubes to make fuel elements (fuel rods) which when bundled together form fuel assemblies (FA).

At each stage all technological operations of fuel production are carried out in strict compliance with safety requirements and by exercising thorough quality control.