

Iran set to boost enrichment capacity

Supreme Leader Ayatollah Ali Khamenei has ordered atomic authorities to increase Iran's uranium enrichment capacity if a nuclear deal with world powers falls apart following the U.S. withdrawal

IRAN'S NUCLEAR FUEL CYCLE

Uranium mining and milling

Uranium ore from mine processed into yellowcake (uranium oxide powder)

Conversion

Yellowcake converted to uranium hexafluoride gas (UF₆)

Enrichment

Centrifuges increase proportion of useful uranium-235 (U-235) isotope in UF₆ gas

Nuclear fuel fabrication

Enriched UF₆ converted into uranium dioxide powder, which is made into reactor fuel elements

Electricity generation

Interim nuclear waste disposal

Nuclear power plant

Reactor uses fuel enriched to between three and five percent

Spent fuel reprocessing

Recovers plutonium from used reactor fuel. Process not currently occurring

Potential path to nuclear weapons

Proliferation concerns associated with uranium enrichment – where levels beyond those needed for nuclear fuel can yield weapons-grade, highly enriched uranium (90 percent U-235 and over)