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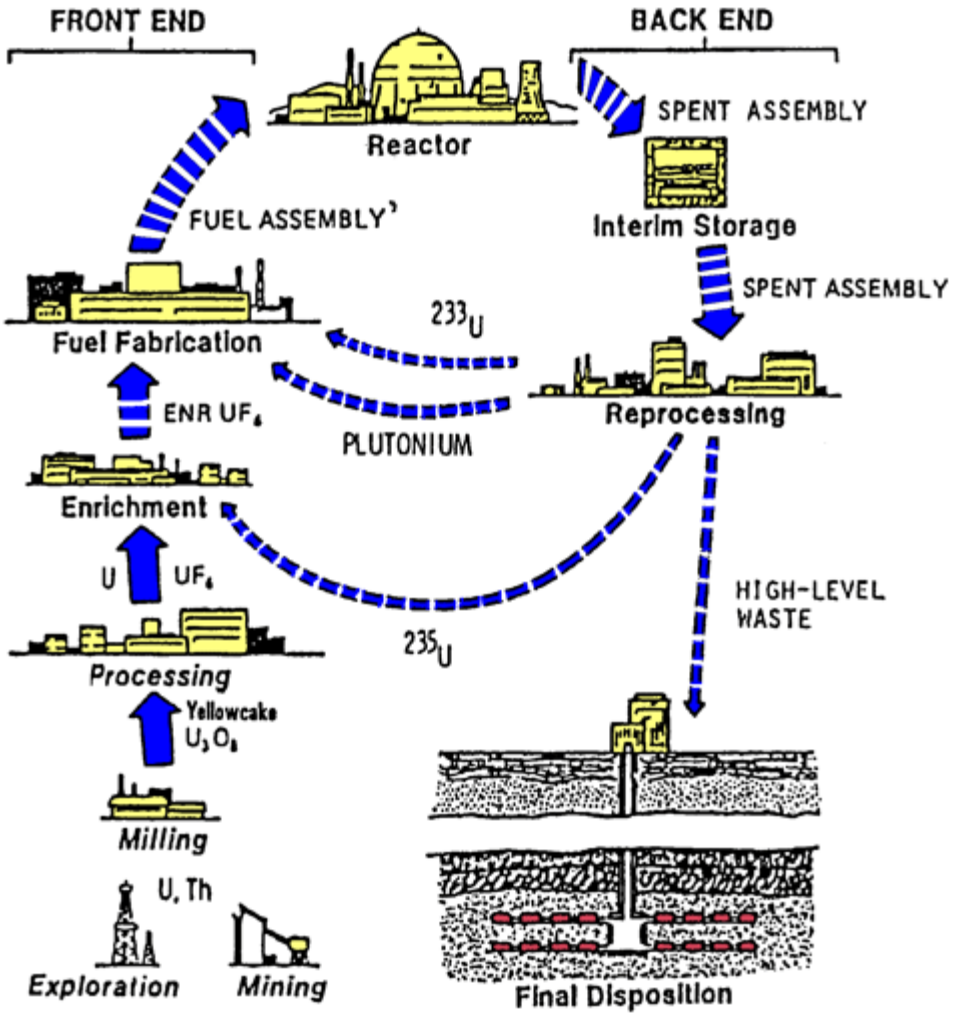
Stages of the Nuclear Fuel Cycle

The nuclear fuel cycle uses uranium in different chemical and physical forms. As illustrated below, this cycle typically includes the following stages:

- Uranium recovery to extract (or *mine*) uranium ore, and concentrate (or *mill*) the ore to produce "yellowcake"
- Conversion of yellowcake into uranium hexafluoride (UF_6)
- Enrichment to increase the concentration of uranium-235 (U^{235}) in UF_6
- Fuel fabrication to convert enriched UF_6 into fuel for nuclear reactors
- Use of the fuel in reactors (nuclear power, research, or naval propulsion)
- Interim storage of spent nuclear fuel
- Reprocessing of high-level waste (currently not done in the U.S.) [1]
- Final disposition (disposal) of high-level waste



[1] Neither a reprocessing facility nor a Federal waste repository is currently approved (licensed) in the United States, and spent fuel is in interim storage. See High-Level Waste Disposal.