Reprocessing SNF [www.nrc.gov](http://www.nrc.gov) Glossary August 25, 2020

# Fuel reprocessing (recycling)

The processing of reactor fuel to separate the unused [fissionable material](https://www.nrc.gov/reading-rm/basic-ref/glossary/fissionable-material.html) from [waste material](https://www.nrc.gov/reading-rm/basic-ref/glossary/waste-radioactive.html). Reprocessing extracts [isotopes](https://www.nrc.gov/reading-rm/basic-ref/glossary/isotope.html) from [spent nuclear fuel](https://www.nrc.gov/reading-rm/basic-ref/glossary/spent-depleted-or-used-nuclear-fuel.html) so they can be used again as reactor fuel. Commercial reprocessing is not practiced in the U.S., although it has been practiced in the past. However, the U.S. Department of Defense oversees reprocessing programs at DOE facilities such as in [Hanford, WA](https://www.nrc.gov/waste/incidental-waste/wir-process/wir-locations/wir-hanford.html), and [Savannah River, SC](https://www.nrc.gov/waste/incidental-waste/wir-process/wir-locations/wir-srs.html). These wastes as well as those wastes at a formerly operating commercial reprocessing facility at [West Valley, NY](https://www.nrc.gov/waste/incidental-waste/wir-process/wir-locations/west-valley.html), are not regulated by the NRC. For related information, see [High-Level Waste](https://www.nrc.gov/waste/high-level-waste.html) and [Waste Incidental to Reprocessing](https://www.nrc.gov/waste/incidental-waste.html).