

Privatization of the US Nuclear Fuel Enrichment and Use of Russian Highly Enriched Materials

Fuel used in commercial nuclear reactors, usually in the uranium dioxide form, contains 3 to 5% uranium-235. The remainder of the uranium is U-238. Since the 1940's, the U.S. government has controlled the [enrichment](#) process. Plants in Tennessee, [Kentucky](#), and [Ohio](#) used gaseous diffusion to concentrate the U-235. In Europe, the newer gas centrifuge process is used. In the 90's, the U.S. government decided to privatize the enrichment facilities through formation of the [United States Enrichment Corporation](#). In addition, the United States entered into an agreement with Russia to purchase highly enriched uranium (greater than 20% U-235) from material removed from disassembled weapons. As a result of these purchases, the U.S. will require less use of the enrichment facilities. In the 2008-2010 timeframe, the Russian materials should account for ~ 50% of the U.S. enriched uranium needs.

Sites providing information on this issue are:

- [Commercial Nuclear Fuel from U.S. and Russian Surplus Defense Inventories: Materials, Policies, and Market Effects](#) (*Energy Information Administration*)
- [Nuclear and Uranium Industry Publications](#) (*Energy Information Administration*)
- [About USEC](#) (*US Enrichment Corporation*)
- [Missiles to Fuel: Step-by-Step](#) (*US Enrichment Corporation*)