



Appendix H — World enrichment plants

The following table, adapted and updated from the *World Nuclear Industry Handbook 2006*, published by Nuclear Engineering International, lists the world's uranium enrichment plants, their status, the technology employed, operator, nameplate capacity in separative work units (SWU) per year, annual production, year of start up of commercial operation/proposed date, and date of shutdown.

World uranium enrichment plants

Country / plant	Status	Process	Operator	Capacity (SWU/year)	Annual production (SWU)	Start of operation / proposed start date	Date of shut down
Argentina							
Pilcaniyeu (Phase 2)	★	Diffusion	NASA	100 000			
Pilcaniyeu (Phase 1)	•	Diffusion	NASA	20 000			
Brazil							
Sorocaba	+	Centrifuge	IPEN				
Resende ⁴	•	Centrifuge	INB	115 000		2006	
Resende Jet Nozzle Plant	∅	Jet nozzle					
France							
Georges Besse Plant	•	Diffusion	Eurodif	10 800 000		1982	2012–13
Georges Besse II ³	★	Centrifuge	Areva	7 500 000		2009	
Germany							
Gronau	•	Centrifuge	Urenco	1 800 000		08/85	
Iran							
Natanz	•						
Japan							
Hyuga	•	Chemical	Asahi Chemical Industry Co	2 000	0	12/86	
Ningyo-Toge (Pilot)	•	Centrifuge	JAEA			1982	
Uranium Enrichment Plant (Rokkasho)	•	Centrifuge	JNFL	1 500 000		03/92	
Ningyo-Toge (Demonstration)	□	Centrifuge	JAEA	200 000 kgswu/y		1989	

Netherlands							
Almelo SP3	•	Centrifuge	Urenco	100 000	100 000	01/73	
Almelo SP4	•	Centrifuge	Urenco	1 500 000	1 400 000	01/80	
Almelo SP5	•	Centrifuge	Urenco	1 000 000	500 000	05/00	
Pakistan							
Kahuta ⁵	•	Centrifuge	PAEC	5 000		1984	
Russia							
Angarsk	•	Centrifuge	Minatom	2 000 000		1954	
Ekaterinberg (Sverdlovsk)	•	Centrifuge	UEC (Minatom)	9 000 000		1949	
Krasnoyarsk-45	•	Centrifuge	EP (Minatom)	5 000 000		1964	
Tomsk 7	•	Centrifuge	SCC (Minatom)	3 000 000			
South Africa							
Valindaba (Pelindaba East)	□	Helikon	UCOR	300 000		1982	
United Kingdom							
E21	•	Centrifuge	Urenco	1 100 000	1 100 000	11/76	

USA							
Paducah, Kentucky	•	Diffusion	USEC	11 300 000	5 400 000	12/54	
Portsmouth, Ohio (Gaseous Diffusion Plant)	□	Diffusion	USEC	7 400 000	6 400 000	11/55	2001
Oak Ridge	□	Diffusion	Exxon	7 700 000	0	1945	1985
Eunice, New Mexico ¹	★	Centrifuge	LES	3 000 000		2008	
Piketon, Ohio ²	★	Centrifuge	USEC	3 500 000		2007	

Source Nuclear Engineering International (Wilmington Publishing), *World Nuclear Industry Handbook 2006*, p. 217. Updated with information provided by the Australian Uranium Association.

- 1 First production from the US 'National Enrichment Facility' at Eunice, New Mexico, is expected in 2008, with full capacity of 3 million SWU per year being reached in 2013.
- 2 The main centrifuge plant at Piketon Ohio, being constructed by USEC, has a planned initial capacity of 3.5 million SWU from 2011, with a license application for 7 million SWU to allow for expansion.
- 3 The Georges Besse II plant in France is expected to start operation in 2009, and expand to full capacity of 7.5 million SWU per year in 2018.
- 4 The capacity of the Resende plant in Brazil is expected to be expanded to 200 000 SWU per year.
- 5 The capacity of the Kahuta plant in Pakistan is expected to be expanded to approximately 150 000 SWU per year.

Status: • = operable
 ★ = under construction
 □ = shut down / decommissioned
 + = proposed
 Ø = suspended