## Ages of US Nuclear Power Plants\* at Closure

<u>Plant</u>	<u>Shutdown Date</u>	Age	<u>Reason/notes</u>
Connecticut Yankee	Dec., 1996	29 yrs	Steam tube damage, ECCS undersized
Millstone I (CT)	July, 1998	28 yrs	Improper operation Cost of safety improvements
Maine Yankee	August, 1997	25 yrs	Steam generator tube damage Electrical power cable separation
Yankee Rowe (MA)	October, 1991	28 yrs.	Reactor vessel embrittlement Steam generator tube damage
Indian Point I (NY)	Oct., 1974	12 yrs.	Lack of an Emergency Cooling System
Shippingport (PA)	Oct., 1982	35 yrs	1 <sup>st</sup> commercial plant in US
Peach Bottom I (PA)	Nov., 1974	7 yrs.	Helium cooled graphite core
Three Mile Island II	( <b>PA</b> ) March, 1979	4 mos.	Partial meltdown!
Dresden I (IL)	Oct., 1978	18 yrs.	1 <sup>st</sup> full scale private funded plant
Zion I (IL)	Feb., 1997	22 yrs.	Steam generator tube cracking, poor operation
Zion II (IL)	Nov., 1996	22 yrs.	Steam generator tube cracking
Big Rock Point (MI)	Aug., 1997	35 yrs.	Economics
Fermi I	Sept., 1972	2 yrs.	Partial meltdown, 1966! Restarted (?) 1970-72
La Crosse (WI)	April, 1987	17 yrs.	Economics
Fort St. Vrain (CO)	Aug., 1989	10 yrs.	Helium cooled graphite core Control rod failure, never dependable
Trojan I (OR)	Nov., 1992	16 yrs.	Steam generator cracking, economics
San Onofre I (CA)	Nov., 1992	25 yrs.	Cost of seismic retrofit Steam generator tube cracking
San Onofre II/III (CA)	January, 2012	30/29 yrs.	Steam generator tube cracking
Humbold Bay (CA)	July, 1976	17 yrs.	2 <sup>nd</sup> oldest commercial plant
Rancho Seco (CA)	June, 1989	15 yrs.	Poor operating history (39% capacity) Only nuke plant closed by referendum
Kewaunee (WI)	May, 2013	39 yrs.	Economics
Crystal River 3 (FL)	Sept., 2009	33 yrs.	Steam generator, containment cracking

\* Includes only commercial plants of significant size shut down prior to initial license expiration (40 years)

## Oldest Operating U.S. Nuclear Plants

<u>Plant</u>	Start Date	Age	Issues
Oyster Creek	Dec., 1969	47 yrs.	Oldest running in US (closure in 2019) Thermal pollution to bay GE mark I (Fukushima type)
Nine Mile Pt. I	Dec., 1969	47 yrs.	Internal cracking (worst nationally) Cooling system malfunctions
R.E. Ginna (NY)	June, 1970	46 yrs.	Radiation release in 1982; Steam generators replaced
Dresden II (IL)	June, 1970	46 yrs.	Cooling system failure, 1989
Point Beach I (WI)	1970	46 yrs.	2 <sup>nd</sup> oldest in total hours run
Monticello (MN)	1971	45 yrs.	GE mark I (Fukushima type) "Safety culture" issues

U.S. Commercial Plants Operating by/before 1973 = 38. Number of these still operating/43+ yrs. = 19 (50%)

## Other Oldest Reactors around the World

Obninsk (Russia)	1954	48 yrs. (at shutdown)	5MW
Calder Hall (UK)	1953	47 yrs. (at shutdown)	military/commercial
Chapelcross (UK)	1959	45 yrs. (at shutdown)	military/commercial
Oldbury (UK)	1967	45 yrs. (at shutdown, 2/29/12)	
Beznau 1 (Swiss)	1969	47 yrs.	Slated for shutdown
Tsuruga – 1 (Japan)	1970	41 yrs. (at shutdown 3/11)	Radiation leaks Permanent shutdown 3/15

## Sources:

US Energy Info Administration: http://www.eia.gov/cneaf/nuclear/page/nuc\_reactors/shutdown.html Wikipedia: http://en.wikipedia.org/wiki/List\_of\_nuclear\_reactors - Power\_station\_reactors\_19 Nuke plants list: http://www.animatedsoftware.com/environm/no\_nukes/nukelist1.htm

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