

ANNEX 3 - STATUS OF JAPANESE NUCLEAR FLEET

Table 23 · Status of Japanese Nuclear Reactor Fleet (as of 1 July 2020)

Operator	Reactor	MW	Startup Year	Age Years	Shutdown		NRA Compliance ^(b)		Status
					Date ^(a) dd/mm/yy	Duration	Application dd/mm/yy	Approval dd/mm/yy	
CHUBU	Hamaoka-3 (BWR)	1056	1987	33.4	29/11/10	9.6	16/06/15		LTO
	Hamaoka-4 (BWR)	1092	1993	27.4	13/05/11	9.1	14/02/14 ^(c)		LTO
	Hamaoka-5 (BWR)	1325	2004	16.2	14/05/11	9.1			LTO
CHUGOKU	Shimane-2 (BWR)	789	1988	32.0	27/01/12	8.4	25/12/13		LTO
HEPCO	Tomari-1 (PWR)	550	1988	31.6	22/04/11	9.2	08/07/13		LTO
	Tomari-2 (PWR)	550	1990	29.8	26/08/11	8.8	08/07/13		LTO
	Tomari-3 (PWR)	866	2009	10.6	05/05/12	8.2	08/07/13		LTO
HOKURIKU	Shika-1 (BWR)	505	1993	27.5	01/03/11	9.3			LTO
	Shika-2 (BWR)	1108	2005	15.0	11/03/11	9.3	12/08/14		LTO
JAPCO	Tokai-2 (BWR)	1060	1978	42.3	11/03/11	9.3	20/05/14	Second Stage: 18/10/18 ^(d)	LTO
	Tsuruga-2 (PWR)	1108	1986	34.0	07/05/11	8.8	05/11/15		LTO
KEPCO	Mihama-3 (PWR)	780	1976	44.4	14/05/11	9.1	17/03/15	Second Stage: 26/10/16 ^(e)	LTO
	Ohi-3 (PWR)	1127	1991	29.1	02/09/13	(4.5)	08/07/13	01/09/17	Restarted 16/03/18
	Ohi-4 (PWR)	1127	1992	28.0	15/09/13	(4.6)	08/07/13	01/09/17	Restarted 11/05/18
	Takahama-1 (PWR)	780	1974	46.3	10/01/11	9.5	17/03/15	Second Stage: 10/06/16 ^(f)	LTO
	Takahama-2 (PWR)	780	1975	45.4	25/11/11	8.6	17/03/15	Second Stage: 10/06/16 ^(f)	LTO
	Takahama-3 (PWR)	830	1984	36.1	20/02/12	(3.9)	08/07/13	09/10/15	Restarted 9/06/17 ^(g)
	Takahama-4 (PWR)	830	1984	35.7	21/07/11	(5.8)	08/07/13	09/10/15	Restarted 22/05/17
KYUSHU	Genkai-3 (PWR)	1127	1993	27.0	11/12/10	(7.3)	12/07/13	14/09/17	Restarted 23/03/18
	Genkai-4 (PWR)	1127	1996	23.6	25/12/11	(6.5)	12/07/13	14/09/17	Restarted 20/06/18
	Sendai-1 (PWR)	846	1983	36.8	10/05/11	(4.3)	08/07/13	27/05/15	Restarted ^(h) 14/08/15
	Sendai-2 (PWR)	846	1985	35.2	01/09/11	(4.1)	08/07/13	27/05/15	Restarted ^(h) 15/10/15
SHIKOKU	Ikaka-3 (PWR)	846	1994	26.3	29/04/11	(5.3)	08/07/13	19/04/16	Restarted ⁽ⁱ⁾ 15/08/16
TEPCO	Kashiwazaki Kariwa-1 (BWR)	1067	1985	35.4	06/08/11	8.9			LTO
	Kashiwazaki Kariwa-2 (BWR)	1067	1990	30.4	05/07/07	13.0			LTO
	Kashiwazaki Kariwa-3 (BWR)	1067	1992	27.6	16/07/07	13.0			LTO
	Kashiwazaki Kariwa-4 (BWR)	1067	1993	26.5	16/07/07	13.0			LTO
	Kashiwazaki Kariwa-5 (BWR)	1067	1989	30.8	25/01/12	8.4			LTO
	Kashiwazaki Kariwa-6 (BWR)	1315	1996	24.4	26/03/12	8.3	27/09/13 ^(j)	First Stage: 27/12/17	LTO
	Kashiwazaki Kariwa-7 (BWR)	1315	1996	23.5	23/08/11	8.9	27/09/13	First Stage: 27/12/17	LTO
TOHOKU	Higashi Dori-1 (BWR)	1067	2005	14.8	06/02/11	9.4	20/06/14		LTO
	Onagawa-2 (BWR)	796	1994	25.5	06/11/10	9.7	27/12/13	First Stage: 26/02/20 ^(k)	LTO
	Onagawa-3 (BWR)	796	2001	19.1	11/03/11	9.3			LTO

Total: 33 Reactors / 31.7 GWe

Sources: JAIF, NRA, compiled by WNISR, 2020

Notes

BWR = Boiling Water Reactor; PWR = Pressurized Water Reactor; LTO = Long-Term Outage.

a – The shutdown dates are from JAIF, “Current Status of Nuclear Power Plants in Japan”, Japan Atomic Industrial Forum, as of 4 June 2020, Japan Atomic Industrial Forum, see https://www.jaif.or.jp/cms_admin/wp-content/uploads/2019/06/jp-npps-operation190606_en.pdf, accessed 4 June 2020.

b – Unless otherwise indicated the application and approval dates are from NRA, “Current circumstances regarding examinations for NPP adherence to new regulations”, Nuclear Regulatory Authority, 15 May 2019; and NRA, “Regarding the progress status of the new regulatory standard compliance examination, (Power reactor relation)”, 1 July 2020 (in Japanese), see <https://www.nsr.go.jp/data/000257174.pdf>, accessed 28 July 2020. Gray dates refer to the first stage (Permission for change in reactor-installation) or second stage (Construction plan approval) of the procedure. All others indicate final agreement of the 3-step conformity review.

c – Application withdrawn and resubmitted on 26 January 2015.

d – Nuclear Regulatory Authority’s (NRA) Approval for Basic Design (Step 2). In November 2018, NRA also approved lifetime extension to 60 years; see JAIF, “NRA Allows Tokai-2 to Be Operated for Sixty Years, a First for a BWR”, 16 November 2018, see <https://www.jaif.or.jp/en/nra-allows-tokai-2-to-be-operated-for-sixty-years-a-first-for-a-bwr/>, accessed 28 April 2019.

e – Application for extension of operating period approved by NRA on 16 November 2016.

f – For both Takahama-1 and -2, the first two steps of the conformity review were achieved on 10 June 2016. The NRA also granted KEPCO approval of extension of operation for 20 years on 20 June 2016. For details see NRA, “The NRA approved the extension of operation period of Takahama Power Station Units 1 and 2”, 21 June 2016, see <http://www.nsr.go.jp/data/000154256.pdf>, accessed 14 July 2017.

g – Takahama-3 had operated briefly between 29 January and 10 March 2016, before it was shut down by court order. The “Shutdown Duration” is calculated until the first restart.

h – Kyushu Electric Power Company was required to finish installing counter-terrorism facilities at the Sendai-1 and -2 reactors by 17 March and 21 May 2020, respectively, but missed the deadline. As a result, Sendai-1 has been shut down since 16 March 2020 and is scheduled for restart on 26 December 2020. While Sendai-2 was shut down on 20 May 2020 after only operating for four months following its maintenance and inspection outage completed in January. It is scheduled for restart on 26 January 2021

i – In December 2019, Ikata-3 was shut down for maintenance and refueling (with restart of operation expected on 27 April 2020). On 17 January 2020, the Hiroshima High Court ruled in favor of a lawsuit brought by local residents within a 50-kilometer radius of the Ikata plant, the effect of which was to extend the outage of the Ikata-3 reactor; see *Asahi Shimbun*, “Residents win appeal to halt Ikata reactor over safety fears”, 17 January 2020, see <http://www.asahi.com/ajw/articles/AJ202001170057.html>, accessed 15 May 2020.

As of 1 July 2020 the court order remained in place with the likelihood of a further court decision following appeal by Kyushu Electric decision from September 2020.

j – On 16 June 2017, TEPCO re-filed its application with the Nuclear Regulatory Authority (NRA) to confirm compliance with safety requirements for Kashiwazaki Kariwa-6 and -7. The NRA had requested resubmission in February 2017.

k – JAIF, “NRA Approves Changes to Reactor Installation for Onagawa-2 under New Regulatory Standards”, 27 February 2020, see <https://www.jaif.or.jp/en/nra-approves-changes-to-reactor-installation-for-onagawa-2-under-new-regulatory-standards/>, accessed 20 May 2020.