Water injection into the reactor of Fukushima Daiichi NPS Unit 1～3

Below are the water injection volume calculated from the data of meter reading of flow meter of fire fighter pump for reference during the period when measuring was conducted by accident management panel (AM panel).

※In the case of fire fighter where there is no flow meter, calculation was made by translating pressure gauge readings or estimated from the specification of fire fighting pump.

(Note 1) The calculated amount of flow may differ from the actual amount of water injected into the reactor as includes the result of temporary flow meter estimate and does not take temporary flow rate change.

(Note 2) If data was switched between AM panel and flow meter of fire fighter pump※ on the same day, summary of both data was calculated. (example; Calculation on the date of March 19, (1) until 12:00 am, flow amount was calculated from the readings of flow meter of fire fighter pump, (2) if measured by AM panel until 24:00 on the same day, it is calculated as (1) + (2))

Changes in the reactor injection water amounts
- Unit 2 March 14 changed to 320kL
- Unit 3 March 13 changed to 389kL
- Unit 3 March 14 changed to 505kL

According to these changes, the cumulative value and the total value have been changed.

⇦ Status of instruments (reference)

□ Calucurated from the readings of AM panel.

Water injection <rough estimate> into the reactor of Unit 1 - 3 of Fukushima Daiichi NPS

Date	Fukushima Daiichi NPS Unit 1 volume (per day)	Unit 1 accumulated (sea water)	Unit 1 accumulated (fresh water)	Fukushima Daiichi NPS Unit 2 volume (per day)	Unit 2 accumulated (sea water)	Unit 2 accumulated (fresh water)	Fukushima Daiichi NPS Unit 3 volume (per day)	Unit 3 accumulated (sea water)	Unit 3 accumulated (fresh water)
March 17, 2011	approx. 294 kL (sea water)	approx. 1,158 kL		approx. 1,157 kL (sea water)	approx. 5,221 kL		approx. 490 kL (sea water)	approx. 3,021 kL	
March 18, 2011	approx. 475 kL (sea water)	approx. 1,633 kL		approx. 802 kL (sea water)	approx. 6,023 kL		approx. 360 kL (sea water)	approx. 3,381 kL	
March 19, 2011	approx. 449 kL (sea water)	approx. 2,082 kL		approx. 711 kL (sea water)	approx. 6,734 kL		approx. 494 kL (sea water)	approx. 3,875 kL	
March 20, 2011	approx. 48 kL (sea water)	approx. 2,130 kL		approx. 480 kL (sea water)	approx. 7,214 kL		approx. 393 kL (sea water)	approx. 4,268 kL	
March 21, 2011	approx. 38 kL (sea water)	approx. 2,167 kL		approx. 384 kL (sea water)	approx. 7,598 kL		approx. 24 kL (sea water)	approx. 4,292 kL	
March 22, 2011	approx. 42 kL (sea water)	approx. 2,209 kL		approx. 261 kL (sea water)	approx. 7,860 kL		approx. 24 kL (sea water)	approx. 4,316 kL	⇦ Unstable readings
March 23, 2011	approx. 301 kL (sea water)	approx. 2,510 kL		approx. 279 kL (sea water)	approx. 8,138 kL	⇦ Unstable readings (recovered)	approx. 24 kL (sea water)	approx. 4,340 kL	⇦ Flow meter fault
March 24, 2011	approx. 226 kL (sea water)	approx. 2,736 kL		approx. 278 kL (sea water)	approx. 8,416 kL	⇦ flow meter down scale	approx. 69 kL (sea water)	approx. 4,409 kL	
March 25, 2011	approx. 106 kL (sea water)	approx. 2,842 kL		approx. 478 kL (sea water)	approx. 8,894 kL	(temporary down scale had been	approx. 271 kL (sea water)	approx. 4,680 kL	
	approx. 60 kL (fresh water)		approx. 60 kL				approx. 88 kL (fresh water)		approx. 88 kL
March 26, 2011	approx. 173 kL (fresh water)		approx. 233 kL	approx. 207 kL (sea water)	approx. 9,101 kL		approx. 336 kL (fresh water)		approx. 424 kL
				approx. 245 kL (fresh water)		approx. 245 kL			
Total	Total	approx. 11,183 kL		Total	approx. 18,216 kL		Total	approx. 14,643 kL	

*Total until May 15.

⇦ Notes to where the large variation was observed (estimate)

(Notwithstanding the notes, adjustment of flow rate and change of pump configulation are conducted from time to time depends on plant parameter)

□ Calucurated AM pnael ⇒ Readings of fire fighter pump flowmeter etc ※

<Reference> AM pnael ⇒ Readings of fire fighter pump flowmeter etc ※

Date	Fukushima Daiichi NPS Unit 1 volume (per day)	Unit 1 accumulated (sea water)	Unit 1 accumulated (fresh water)	Fukushima Daiichi NPS Unit 2 volume (per day)	Unit 2 accumulated (sea water)	Unit 2 accumulated (fresh water)	Fukushima Daiichi NPS Unit 3 volume (per day)	Unit 3 accumulated (sea water)	Unit 3 accumulated (fresh water)
March 17, 2011	approx. 294 kL (sea water)	approx. 1,158 kL		approx. 1,157 kL (sea water)	approx. 5,221 kL		approx. 490 kL (sea water)	approx. 3,021 kL	
March 18, 2011	approx. 475 kL (sea water)	approx. 1,633 kL		approx. 791 kL (sea water)	approx. 6,012 kL	⇦ flow rate adjustment	approx. 360 kL (sea water)	approx. 3,381 kL	
March 19, 2011	approx. 475 kL (sea water)	approx. 2,109 kL		approx. 784 kL (sea water)	approx. 6,796 kL		approx. 494 kL (sea water)	approx. 3,875 kL	
March 20, 2011	approx. 1,020 kL (sea water)	approx. 3,129 kL	⇦ flow rate adjustment	approx. 792 kL (sea water)	approx. 7,588 kL		approx. 1,321 kL (sea water)	approx. 5,196 kL	⇦ configulation changed to 2 pumps
March 21, 2011	approx. 1,317 kL (sea water)	approx. 4,446 kL	⇦ configulation changed to 2 pumps	approx. 811 kL (sea water)	approx. 8,399 kL		approx. 1,625 kL (sea water)	approx. 6,821 kL	
March 22, 2011	approx. 1,593 kL (sea water)	approx. 6,039 kL		approx. 816 kL (sea water)	approx. 9,215 kL		approx. 1,637 kL (sea water)	approx. 8,458 kL	
March 23, 2011	approx. 799 kL (sea water)	approx. 6,839 kL	⇦ flow rate adjustment (switched to feed water system)	approx. 806 kL (sea water)	approx. 10,021 kL		approx. 1,633 kL (sea water)	approx. 10,091 kL	
March 24, 2011	approx. 226 kL (sea water)	approx. 7,065 kL	⇦ flow rate adjustment	approx. 785 kL (sea water)	approx. 10,806 kL		approx. 1,481 kL (sea water)	approx. 11,572 kL	⇦ flow rate adjustnbet 1 pump stopped
March 25, 2011	approx. 106 kL (sea water)	approx. 7,171 kL		approx. 483 kL (sea water)	approx. 11,289 kL	⇦ flow rate adjustment	approx. 271 kL (sea water)	approx. 11,843 kL	
	approx. 60 kL (fresh water)		approx. 60 kL				approx. 88 kL (fresh water)		approx. 88 kL
March 26, 2011	approx. 173 kL (fresh water)	⇦ configulation changed to single pump	approx. 233 kL	approx. 207 kL (sea water)	approx. 11,497 kL		approx. 336 kL (fresh water)	⇦ configulation changed to 2 pumps	approx. 424 kL
				approx. 245 kL (fresh water)		approx. 245 kL			
Total	Total	approx. 15,512 kL		Total	approx. 20,612 kL		Total	approx. 21,805 kL	

**Total until May 15.