## 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))

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

Fukushima Daiichi NPS Unit 1				Fukushima Daiichi NPS Unit 2						Fukushin		
(per day)	accumulated (sea water)	accumulated (fresh water)	VO	lume (per	day)	accumu	lated (sea water)	accumulated (fresh water)	vol	lume(pe	r day)	
kL (sea water)	approx. 1,158 kL		approx.	1,157 kL	(sea water)	approx.	5,221 kL		approx.	490 kL	(sea wate	
kL (sea water)	approx. 1,633 kL	/	approx.	802 kL	(sea water)	арргох.	6,023 kL	/	approx.	360 kL	(sea wate	
kL (sea water)	approx. 2,082 kL	/	approx.	711 kL	(sea water)	approx.	6,734 kL	/	approx.	494 kL	(sea wate	
kL (sea water)	approx. 2,130 kL		approx.	480 kL	(sea water)	approx.	7,214 kL	/	approx.	393 kL	(sea wate	
kL (sea water)	approx. 2,167 kL		approx.	384 kL	(sea water)	approx.	7,598 kL	/	approx.	24 kL	(sea wate	
kL (sea water)	approx. 2,209 kL		approx.	261 kL	(sea water)	approx.	7,860 kL	/	approx.	24 kL	(sea wate	
kL (sea water)	approx. 2,510 kL		approx.	279 kL	(sea water)	approx.	8,138 kL	Unstable readings (recovered)	approx.	24 kL	(sea wate	
kL (sea water)	approx. 2,736 kL		approx.	278 kL	(sea water)	approx.	8,416 kL	flow meter down	approx.	69 kL	(sea wate	
kL (sea water)	approx. 2,842 kL	V	approx.	478 kL	(sea water)	approx.	8.894 kL	scale	approx.	271 kL	(sea wate	
kL (fresh water)		approx. 60 kL	арргох.	470 KL	(sea water)	арргох.	0,034 KL	(temporary down scale had been	approx.	88 kL	(fresh wate	
kL (fresh water)		approx. 233 kL	approx.	207 kL	(sea water)	approx.	9,101 kL		approx.	336 kL	/fht	
KL (fresh water)		233 KL	approx.	245 kL	(fresh water)			approx. 245 kL	арргох.	330 KL	(fresh wate	
		•										

	approx.	24 KL	(sea water)	approx.	4,340	KL	₩ Flow	meter fault	t l
own	approx.	69 kL	(sea water)	арргох.	4,409	kL	/		
down	approx.	271 kL	(sea water)	арргох.	4,680	kL	/		
en	approx.	88 kL	(fresh water)				approx.	88	kL
5 kL	approx.	336 kL	(fresh water)				approx.	424	kL
		Total			annrox	14	643 kl		

⇔ Status of instruments (reference)

AM panel.

accumulated (sea water)

3,021 kL

3,381 kL

3,875 kL

4,268 kL

4.292 kL

Fukushima Daiichi NPS Unit 3

490 kL (sea water)

360 kL (sea water)

494 kL (sea water)

393 kL (sea water)

24 kL (sea water)

24 kL (sea water)

Calucurated from the readings of

4,316 kL Unstable readings

Calcurated AM pnael ⇒ Readings of

fire fighter pump flowmeter etc \*

\*Total until May 15.

Date

March 17, 2011

March 18, 2011

March 19, 2011

March 20, 2011

March 21, 2011

March 22, 2011

March 23, 2011

March 24, 2011

March 25, 2011

March 26, 2011

approx. 11,183 kL

Total 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)

approx. 18,216 kL

## <Reference> AM pnael ⇒ Readings of fire fighter pump flowmeter etc \*\*

volume (per day)

approx.

approx.

approx.

approx.

294 kL (sea water)

475 kL (sea water)

449 kL (sea water)

48 kL (sea water)

38 kL (sea water)

42 kL (sea water)

301 kL (sea water)

226 kL (sea water)

106 kL (sea water)

60 kL (fresh water)

173 kL (fresh water

Total

Fukushima Dajichi NPS Unit 1	ichima
	Joinna
Date volume (per day) accumulated (sea water) accumulated (fresh water) volume (per day)	ay)
March 17, 2011   approx. 294 kL (sea water)   approx. 1,158 kL   / approx. 1,157 kL (s	ea water)
March 18, 2011 approx. 475 kL (sea water) approx. 1,633 kL approx. 791 kL (sea water)	ea water)
March 19, 2011 approx. 475 kL (sea water) approx. 2,109 kL / approx. 784 kL (sea water)	ea water)
March 20, 2011 approx. 1,020 kL (sea water) approx. 3,129 kL ← flow rate adjustment approx. 792 kL (s	ea water)
	ea water)
March 22, 2011 approx. 1,593 kL (sea water) approx. 6,039 kL to 2 p/mps approx. 816 kL (s	ea water)
March 23, 2011 approx. 799 kL (sea water) approx. 6,839 kL find for the design prox. 806 kL (sea water) approx. 806 kL (sea water)	ea water)
March 24, 2011 approx. 226 kL (sea water) approx. 7,065 kL approx. 785 kL (sea water) approx. 785 kL (sea water)	ea water)
March 25, 2011 approx. 106 kL (sea water) approx. 7,171 kL approx. 483 kL (sea water) approx.	ea water)
approx. 60 kL (fresh water)	iea water)
March 26, 2011 approx. 173 kL (fresh water) configuration changed approx. 233 kL approx. 207 kL (s	ea water)
	esh water)

Fukushima Daiichi NPS							t 2
>	olume (	per	day)	accum	nulated(sea v	vater)	accumulated(fresh water)
approx.	1,157	kL	(sea water)	approx.	5,221	kL	/
approx.	791	kL	(sea water)	approx.	6,012	kL	flow rate adjustment
approx.	784	kL	(sea water)	approx.	6,796	kL	/
approx.	792	kL	(sea water)	approx.	7,588	kL	/
approx.	811	kL	(sea water)	approx.	8,399	kL	/
approx.	816	kL	(sea water)	approx.	9,215	kL	/
approx.	806	kL	(sea water)	approx.	10,021	kL	/
approx.	785	kL	(sea water)	approx.	10,806	kL	/
approx.	483	kL	(sea water)	approx.	11,289	kL	flow rate adjustment
approx.	207	kL	(sea water)	approx.	11,497	kL	, <del>\-</del>
approx.	245	kL	(fresh water)				approx. 245 kL

Fukushima Daiichi NPS Unit 3										
volume(per day)					ulated(sea v	vater)	accumulated(fresh water)			
approx.	490	kL	(sea water)	approx.	3,021	kL				
approx.	360	kL	(sea water)	approx.	3,381	kL	] /			
approx.	494	kL	(sea water)	approx.	3,875	kL	] /			
approx.	1,321	kL	(sea water)	approx.	5,196	kL	configulation changed to 2 pumps			
арргох.	1,625	kL	(sea water)	approx.	6,821	kL				
approx.	1,637	kL	(sea water)	approx.	8,458	kL				
approx.	1,633	kL	(sea water)	approx.	10,091	kL				
approx.	1,481	kL	(sea water)	approx.	11,572	kL	flow rate adjustnbet			
approx.	271	kL	(sea water)	approx.	11,843	kL	1 pump stopped			
approx.	88	kL	(fresh water)		onfigulation ch	anged	approx. 88 kL			
approx.	336	kL	(fresh water)	to	2 pumps		approx. 424 kL			
				•			•			

\*\*Total until May 15.

Total approx. 15,512 kL Total approx. 20,612 kL Total approx. 21,805 kL