Fukushima Daiichi Nuclear Power Station Plant Parameters

[Note]

Some indicators might not be functioning properly beyond the normal condition for usage affected by the earthquake and subsequent events. We comprehensively evaluate situation in plants using all the available information from indicators and also focusing on trends, taking uncertainty of indicators into consideration.

ding m 39m ³ /h (15) iownscale 550 mm MPa g s (15) (Since the feed-water nozzle:102.5 °C reactor vessel bottom:92.9 °C (15) 92.8 °C + °C (15) (1	Fresh water feeding Feed water system 3.6m ³ /h (as of 11:00, 8/15) Fuel range A:-1850 mm Fuel range B:-2200 mm (as of 11:00, 8/15) System A:0.020 MPa g System B:-MPa g (as of 11:00, 8/15) re is no water inflow in the system it is impossible to coll Temperature in feed-water nozzle:108.2 °C Temperature at reactor vessel bottom:115.7 °C (as of 11:00, 8/15) D/W/0.120 MPa abs S/C: Downscale ×1 (as of 11:00, 8/15) RPV bellow seal:87°C HVH return:116°C (as of 11:00, 8/15) D/W(A):1.09E+01Sv/h (B):4.15E+00Sv/h S/CLOSV/h %1	Fresh water feeding Feed water system 9.1m³/h (as of 11:00, 8/15) Fuel range A:-1800 mm Fuel range B:-2200 mm (as of 11:00, 8/15) System A:-0.185 MPa g (A) %3 System B:-0.104 MPa g (as of 11:00, 8/15) lect the data) Temperature in feed-water nozzle:107,0 °C Temperature at reactor vessel bottom:103.9 °C (as of 11:00, 8/15) D/W:0.1015 MPa abs S/C:0.1839 MPa abs (as of 11:00, 8/15) RPV bellow seal:120.2 °C W3 HVH return:111.5 °C (as of 11:00, 8/15) D/W(A):3.71E+00Sv/h %3:2.70E+00Sv/h %3:2.62-01Sv/h		 **2 (Heat removal of the react injection is unnecessary) Stoppage range 1886mm	Stoppage range 2544mm (as of 12:00, 8/15) 0.023 MPa g (as of 12:00, 8/15) 31.6 °C (as of 12:00, 8/15) ater temperature of the
550 mm ¥3 (15) MPa g §'15) (Since the feed-water nozzle:102.5 °C (Since the reactor vessel bottom:92.9 °C (15) a abs* abs (15) (15) 92.8 °C C Y Y 0Sv/h ¥1 2Sv/h ¥1 1Sv/h ¥1	Fuel range B:-2200 mm #3 (as of 11:00, 8/15) System A:0.020 MPa g System B:-MPa g [as of 11:00, 8/15] pre is no water inflow in the system it is impossible to coll Temperature in feed-water nozzle:108.2 °C Temperature at reactor vessel bottom:115.7 °C [as of 11:00, 8/15] D/W:0.120 MPa abs \$/C S/C: Downscale #1 [as of 11:00, 8/15] #3 HVH return:116°C [as of 11:00, 8/15] D/W(A):1.09E+01Sv/h #3 MV(A):1.109E+01Sv/h #1 S/C(A):1.38E-01Sv/h #1	Fuel range B:-2200 mm #3 (as of 11:00, 8/15) System A:-0.185 MPa g (A) #3 System B:-0.104 MPa g (C) #3 (as of 11:00, 8/15) (C) #3 lect the data) Temperature in feed-water nozzle:107.0 °C Temperature at reactor vessel bottom:103.9 °C (as of 11:00, 8/15) D/W:0.1015 MPa abs S/C:0.1839 MPa abs S/C:0.1839 MPa abs (as of 11:00, 8/15) RPV bellow seal:120.2 °C #3 HVH return:111.5 °C (as of 11:00, 8/15) D/W(A):3.71E+00Sv/h #3 (B):2.70E+00Sv/h #3	**2 (Monitoring is unnecessary since all fuel are	1886mm (as of 12'00, 8/15) 0.010 MPa g (as of 12'00, 8/15) 25.3 °C (as of 12'00, 8/15) **2 (monitoring through w reactor)	2544mm (as of 12:00, 8/15) 0.023 MPa g (as of 12:00, 8/15) 31.6 °C (as of 12:00, 8/15) ater temperature of the
(Since the feed-water nozzle:102.5 °C reactor vessel bottom:92.9 °C (15) (15) (15) (15) (15) (15) (05v/h *1 (25v/h *1 (15v/h *1) (15v/h *1)	System Bi-MPa g (as of 11:00, 8/15) re is no water inflow in the system it is impossible to coll Temperature in feed-water nozzle:108.2 °C Temperature at reactor vessel bottom:115.7 °C (as of 11:00, 8/15) D/W:0.120 MPa abs S/C: Downscale %11 (as of 11:00, 8/15) RPV bellow seal87°C %3 HVH return:116°C (as of 11:00, 8/15) D/W(A):1.09E+01Sv/h (B):4.15E+00Sv/h %1 S/C(A):1.38E-01Sv/h	System B:-0.104 MPa g (C) **3 Ias of 11:00, 8/15) (C) **3 Iect the data) Temperature in feed-water nozzle 107.0 °C Temperature at reactor vessel bottom:103.9 °C (as of 11:00, 8/15) D/W:0.1015 MPa abs (as of 11:00, 8/15) BY bellow seal:120.2 °C **3 HVH return:111.5 °C (as of 11:00, 8/15) D/W(A):3.71E:00Sv/h **3 (B):2.70E:00Sv/h **3	**2 (Monitoring is unnecessary since all fuel are	(as of 12:00, 8/15) 25.3 °C (as of 12:00, 8/15) #2 (monitoring through w reactor) #2 (Monitoring is unnecessary	(as of 12:00 , 8/15) 31.6 ℃ (as of 12:00 , 8/15) rater temperature of the
feed-water nozzle:102.5 °C reactor vessel bottom:92.9 °C '15) a abs* abs (15) 92.8 °C F°C 1'5) OSv/h ×1 2Sv/h ×1 1Sv/h ×1 1Sv/h	Temperature in feed-water nozzle:108.2 °C Temperature at reactor vessel bottom:115.7 °C (as of 11:00 , 8/15) D/W:0.120 MPa abs S/C: Downscale (as of 11:00 , 8/15) RPV bellow seal87°C HVH return:116°C (as of 11:00 , 8/15) D/W:0.120 MPa abs %1 (as of 11:00 , 8/15) DVH return:116°C (as of 11:00 , 8/15) D/W:0.109E+01Sv/h (B):4.15E+00Sv/h X:1 S/C(A):1.38E-01Sv/h	Temperature in feed-water nozzlei:107.0 °C Temperature at reactor vessel bottom:103.9 °C (as of 11:00 , 8/15) D/W:0.1015 MPa abs S/C:0.1839 MPa abs (as of 11:00 , 8/15) RPV bellow seal:120.2 °C W:3 of 11:00 , 8/15) D/W(A):3.71E+00Sv/h WA:3.70E+00Sv/h	(Monitoring is unnecessary since all fuel are	(as of 12:00, 8/15) #2 (monitoring through wareactor) #2 (Monitoring is unnecessary	(as of 12:00 , 8/15)
reactor vessel bottom:92.9 °C (15) a <u>abs*</u> abs (15) 92.8 °C 4 °C (15) 0Sv/h %1 2Sv/h %1 1Sv/h %1	Temperature at reactor vessel bottom:115.7 °C (as of 11:00, 8/15) D/W:0.120 MPa abs S/C: Downscale (as of 11:00, 8/15) RPV bellow seal:87°C HVH return:116°C (as of 11:00, 8/15) D/W(A):1.09E+01Sv/h D/W(A):1.38E+01Sv/h S/C(A):1.38E+01Sv/h	Temperature at reactor vessel bottom: 103.9 °C (as of 11:00, 8/15) D/W:0.1015 MPa abs S/C:0.1839 MPa abs (as of 11:00, 8/15) RPV bellow seal: 120.2 °C HVH return: 111.5 °C (as of 11:00, 8/15) D/W(A):3.71E+00Sv/h B):2.70E+00Sv/h	(Monitoring is unnecessary since all fuel are	reactor) *2 (Monitoring is unnecessar)	
abs (15) 92.8 °C + °C (15) 0Sv/h %1 1Sv/h %1 1Sv/h	S/C: Downscale **1 (as of 11:00, 8/15) RPV bellow seal87'C **3 HVH return:116'C (as of 11:00, 8/15) D/W(A):1.09E+01Sv/h (B):4.15E+00Sv/h **1 S/C(A):1.38E-01Sv/h	S/C:0.1839 MPa abs (as of 11:00, 8/15) RPV bellow seal:120.2 °C #X3 HVH return:111.5 °C (as of 11:00, 8/15) D/W(A):3.71E+00Sv/h (B):2.70E+00Sv/h			y since heat removal of
FC (15) OSv/h ※1 2Sv/h ※1 1Sv/h 1Sv/h	HVH return:116C (as of 11:00 , 8/15) D/W(A):1.09E+01Sv/h (B):4.15E+00Sv/h	HVH return:111.5 °C (as of 11:00 , 8/15) D/W(A):3.71E+00Sv/h %3 (B):2.70E+00Sv/h %3	-		y since heat removal of
/2Sv/h %1 1Sv/h /1Sv/h	(B):4.15E+00Sv/h	(B):2.70E+00Sv/h			y since heat removal of
10/	(as of 11:00 , 8/15)	(B):3.06E-01Sv/h (as of 11:00 , 8/15)			' since heat removal of
2 /15)	System A:48.4 °C System B:48.3 °C (as of 11:00 , 8/15)	System A:45.6 °C System B:45.8 °C (as of 11:00 , 8/15)			
485MPa abs)	0.384MPa g (0.485MPa abs)	0.384MPa g (0.485MPa abs)		_	
528MPa abs)	0.427MPa g (0.528MPa abs)	0.427MPa g (0.528MPa abs)			
35.0°C (as of 11:00 , 8/15)	37.0°C (as of 11:00 , 8/15)	33.9 °C (as of 11:00 , 8/15)	43°C (as of 11:00 , 8/15)	28.6 ℃ (as of 12:00 , 8/15)	36.5 ℃ (as of 12:00 , 8/15)
% 1	1100mm (as of 11:00 , 8/15)	%1 4600mm (as of 11:00 , 8/15)		*	×2
Receiving offsite power (P/C2C) Receiving offsite power (P/C4D)		Receiving offsite power			
sure in D/W of Unit 1 on 11/29 wa	as corrected because it was incorrect,		Temperature in the Common Spent Fuel Storage: 36°C (as of 6:30, 8/15)	5u: SHC mode (from 10:43, 8/8)	6u: Non-thermal Mod (from 11:04 ,8/15)
4	85MPa abs) 28MPa abs) 35.0°C (as of 11:00, 8/15) #1 Receiving offsite ure in D/W of Unit 1 on 11/29 wa MPa g) = Absolute pressure(MPa abs)	85MPa abs) 0.384MPa g (0.485MPa abs) .28MPa abs) 0.427MPa g (0.528MPa abs) .35.0°C .37.0°C (as of 11:00, 8/15)	85MPa abs) 0.384MPa g (0.485MPa abs) 0.384MPa g (0.485MPa abs) 28MPa abs) 0.427MPa g (0.528MPa abs) 0.427MPa g (0.528MPa abs) 35.0°C 37.0°C 33.9°C (as of 11:00, 8/15) (as of 11:00, 8/15) (as of 11:00, 8/15) ¥1 1100mm ¥1 Receiving offsite power (P/C2C) Receiving offsite power (P/C4D) ure in D/W of Unit 1 on 11/29 was corrected because it was incorrect. X1	85MPa abs) 0.384MPa g (0.485MPa abs) 0.384MPa g (0.485MPa abs) 0.427MPa g (0.528MPa abs)	85MPa abs) 0.384MPa g (0.485MPa abs) 0.384MPa g (0.485MPa abs) - 28MPa abs) 0.427MPa g (0.528MPa abs) 0.427MPa g (0.528MPa abs) - 35.0°C (as of 11:00, 8/15) 37.0°C (as of 11:00, 8/15) 33.9°C (as of 11:00, 8/15) 43°C (as of 11:00, 8/15) 28.6°C (as of 11:00, 8/15) **1 1100mm (as of 11:00, 8/15) **1 4600mm (as of 11:00, 8/15) ** Receiving offsite power (P/C2C) Receiving offsite power (P/C4D) Receiving offsite power (P/C4D) Receiving offsite power (P/C4D) ure in D/W of Unit 1 on 11/29 was corrected because it was incorrect, 36°C (as of 630, 8/15) Temperature in the Common Spent 36°C (as of 630, 8/15) 5u: SHC mode (from 10:43, 8/8)

Fukushima Daiichi Nuclear Power Station Supplemental explanation for the plant parameters

■Supplemental explanation for each parameter

Item	Recording manner	Measurement manner	Ch number or number of systems
Status of water injection to the reactor	Water inflow	Temporary	System 1 / 1
Water level in the reactors	Data measured by the water gauge, which monitor the fuel range	Main indicator	System A 1∕1Ch System B 1∕1Ch
Pressure in the reactor	Measure voltage value of pressure instrument by the main indicator panel and convert to the pressure. One representing value is noted among multiple data on each System A, B.	Unit 1/2 Temporary Unit 3 Measures voltage value through the main indicator panel and converts them to the pressure	Temporary indicator: 1/1 system Main:System A 1/2Ch System B 1/2Ch
Temperature in the reactor	Since there is no water inflow at the points, where thermometers are set, no data is collected.	—	-
Temperature around the reactor vessel	Data measured at feed-water nozzle and at reactor vessel bottom (1U、3U:RPV Bottom Head、2U:RPV Wall Above Bottom Head) are noted among multiple data to view the whole picture.	Main recorder	Point of Feed-water nozzle 1/4Ch reactor vessel bottom 1/2Ch (Unit1) 1/1Ch (Unit2/3)
Pressure in D/W ∙ S/C	Data from main instrument. Measure voltage value by the main instrument panel converted to the pressure in case main instruments are not in function. As to the D/W pressure of Unit2, the reading of the temporary indicator is described, (D/W : Dry Well, S/C : Suppression Chamber)	Unit 3:Main instrument panel (converted from voltage) (S/C)	(D/W) Main recorder wide range 1 / 1Ch (Unit 1) Temporary indicator: 1 / 1 system (Unit 2) Main instrument panel 1 / 4Ch (Unit 3) (S/C) Main indicator 1 / 1system (Unit 1/2) Main instrument panel 1 / 2Ch (Unit 3)
D/W Atmosphere temperature	Data at upper point (RPV Bellows Air) and middle point (HVH return) are noted among multiple data to view the whole picture, (RPV : Reactor Pressure Vessel, HVH : Heating Ventilating Handling Unit)	Main recorder	RPV Bellows Air 1 / 5Ch D/W HVH return 1 / 5Ch
CAMS radiation monitor	Data from the instrument reading of main indicator, (CAMS : Containment Atmospheric Monitoring System)	Main indicator	D/W System A 1 / 1 Ch System B 1 / 1 Ch S/C System A 1 / 1 Ch System B 1 / 1 Ch
Temperature in S/C	Data from the instrument reading of main recorder. One representing value is noted among multiple data on each System A, B.	Main recorder	System A1/4Ch(Unit 1)、8Ch(Unit 2/3) System B1/4Ch(Unit 1)、8Ch(Unit 2/3)
Temperature in the spent fuel pool	Data from the instrument reading or from the measurement reading of samples of main indicator and temporary insuturment (Non-thermal mode : Urgent Heat load Mode、SHC mode : Shut down Cooling Mode)	Unit:2Main recorder Unit1/3/4:Temporary indicator	Main:1/1Ch(Unit 2) Temporary indicator: 1/1 system(Unit 1/3/4)
FPC skimmer surge tank level	Data from the instrument reading of main indicator (FPC : Fuel Pool Cooling and Filtering System)	Main indicator	System 1 ⁄ 1

■Supplemental explanation for notes

ltem	Contents	Status As of 12:00 on August 15
Instrument failure	Instrument failure : down of instrument reading (over) scale/failure of instrument	Unit 1 CAMS D/W radiation monitor, Level of skimmer surge tanks Unit 2 Pressure in S/C, CAMS D/W(B) radiation monitor, CAMS S/C(B) radiation monitor Unit 3 Level of skimmer surge tanks
	Unit4: Monitoring is not implemented since all fuel are takeoff. Unit5/6: Monitoring is not implemented since heat removal of reactor is functioning	-
Continuously monitoring the status	Inaccurate Data defined from relation with other Parameters such as negative figure.	Unit 1 Reactor water level(B) Unit 2 Reactor water level, RPV bellow air temperature, Unit 3 Reactor water level, reactor pressure, RPV bellow air temperature, CAMS D/W(A) radiation monitor