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.

As of 06:00 on June 22

Unit	Unit 1	Unit 2	Unit 3		Unit 4	Unit 5	Unit 6	
Status of water injection to the reactor	Fresh water feeding Feed water system 4.0m ³ /h (as of 5:00 , 6/22)	Fresh water feeding Feed water system 4.5m ³ /h (as of 5:00 , 6/22)	Fresh water feeding Feed water system 10.0m ³ /h (as of 5:00 , 6/22)			*2 (Heat removal of the reactor is functioning. Water injection is unnecessary)		
Water level in the reactor	Fuel range A: Downscale Fuel range B:-1650 mm X3 (as of 5:00 , 6/22)	Fuel range A:-1450 mm %3 Fuel range B:-2150 mm %3 (as of 5:00 , 6/22)	Fuel range A:-1850 mm Fuel range B:-2050 mm (as of 5:00 , 6/22)	*3 *3		Stoppage range 1843mm (as of 6:00 , 6/22)	Stoppage range 1916mm (as of 6:00 , 6/22)	
Pressure in the reactor	System A:0.030 MPa g System B:-MPa g (as of 5:00 , 6/22)	System A:-0.018 MPa g (A):X3 System B:-0.007 MPa g (D):X3 (as of 5:00 , 6/22)	System A:-0.145 MPa g System B:-0.102 MPa g (as of 5:00 , 6/22)	(A) %3 (C) %3		0.010 MPa g (as of 6:00 , 6/22)	0.016 MPa g (as of 6:00 , 6/22)	
Water temperature of the reactor	(Since there is no water inflow in the system it is impossible to collect the data)					44.8 °C (as of 6:00 , 6/22)	28.4 °C (as of 6:00 , 6/22)	
Temperature around the reactor vessel	Temperature in feed-water nozzle:114.9 °C Temperature at reactor vessel bottom:99.6 °C (as of 5:00 , 6/22)	Temperature in feed-water nozzle:107.4 °C Temperature at reactor vessel bottom:108.4 °C (as of 5:00 , 6/22)	Temperature in feed-water nozzle:1 Temperature at reactor vessel botto (as of 5:00 , 6/22)		%2 (Monitoring is unnecessary since all fuel are	*2 (monitoring through water temperature of the reactor)		
Pressure in D/W • S/C	D/W:0.1327 MPa abs* S/C:0.115 MPa abs (as of 5:00 , 6/22)	D/W:0.010 MPa abs %3 S/C: Downscale %1 (as of 5:00 , 6/22)	D/W:0.0999 MPa abs S/C:0.1839 MPa abs (as of 5:00 , 6/22)		takeoff)			
D/W Atmosphere temperature	RPV bellow seal:99.7 °C HVH return:100.4 °C (as of 5:00 , 6/22)	RPV bellow seal:42°C	RPV bellow seal:159.2 °C HVH return:147.8 °C (as of 5:00 , 6/22)	*3		*2 (Monitoring is unnecessary since heat removal of reactor is functioning.)		
CAMS radiation monitor	D/W(A):0.00E+00Sv/h %1 (B):3.84E+01Sv/h %1 S/C(A):7.79E-01Sv/h (B):8.05E-01Sv/h (as of 5:00 , 6/22)	D/W(A):1.41E+01Sv/h (B):1.55E+01Sv/h S/C(A):2.31E-01Sv/h (B):1.97E+01Sv/h (as of 5:00 , 6/22)	D/W(A):5.16E+00Sv/h (B):3.08E+00Sv/h S/C(A):3.33E-01Sv/h (B):3.08E-01Sv/h (as of 5:00,6/22)	*3				
Temperature in S/C	System A:50.2 °C System B:50.0 °C (as of 5:00 , 6/22)	System A:59,3 °C System B:59,3 °C (as of 5:00 , 6/22)	System A:47.1 °C System B:47.2 °C (as of 5:00 , 6/22)					
Designed usable D/W pressure	0.384MPa g (0.485MPa abs)	0.384MPa g (0.485MPa abs)	0.384MPa g (0.485MPa abs) 0.427MPa g (0.528MPa abs)					
Designed usable D/W maximum pressure	0.427MPa g (0.528MPa abs)	0.427MPa g (0.528MPa abs)			_	_		
Temperature in the spent fuel pool	% 1	32°C (as of 5:00 , 6/22)	62 °C (as of 5/8) : **4		91~92 °C (as of 16:00 , 6/21)	44.4 °C (as of 6:00 , 6/22)	38.5 ℃ (as of 6:00 , 6/22)	
FPC skimmer surge tank level	1350mm (as of 5:00 , 6/22)	3350mm (as of 5:00 , 6/22)	*1		4900mm (as of 5:00 , 6/22)	*2		
Power source	Receiving offsite	Receiving offsite power (P/C2C) Receiving offsite power (P/C4D)			Receiving offsite power			
Others	- Regarding reactor water level fuel range A of Unit 1, inspection of the instrument was completed at 17:00, May 11 - Regarding pressure in Unit 1, due to installment of the temporary instrument, its reading instead of those of System A and B will be described in the column of System A from 11:00, June 4. *Data of Pressure in D/W of Unit 1 on 11/29 was corrected because it was incorrect.			e described in	Temperature in the Common Spent Fuel Storage: 32°C (as of 6:30, 6/21)	5u : SHC mode (from 21:06 ,6/21)	6u: SHC mode (from 9:51 ,6/21)	
Pressure conversion Gauge pressure(MPa g) = Absolute pressure(MPa abs) - atmospheric pressure (normal atmospheric pressure0.1013 MPa) Absolute pressure(MPa abs) = Gauge pressure(MPa g) + atmospheric pressure (normal atmospheric pressure0.1013 MPa) **1 : Instrument failure **2 : Not covered for colleting data **3 : continuously monitoring the status **4 : measured at SFP sampling								

Fukushima Daiichi Nuclear Power Station Supplemental explanation for the plant parameters

■Supplemental explanation for each parameter

ltem	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	basure voltage value of pressure instrument by the main indicator panel and convert to the pressure. One boresenting value is noted among multiple data on each System A, B. Unit 2/3 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.	-	-	
	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 indicator. Measure voltage value by the main indicator panel converted to the pressure in case main indicator are not in function. (D/W : Dry Well, S/C : Suppression Chamber)	Unit1/2:Main indicator Unit 3:Main indicator panel (converted from voltage) :	Main indicator system 1 / 1 Main recorder regular use 1 / 1Ch wide range 1 / 1Ch	
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	from the instrument reading of main indicator. MS : Containment Atmospheric Monitoring System) Main indicator		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)	Unit1/2:Main recorder Unit3:sampling Unit4:Temporary indicator	Main:1/2Ch (Unit 1)、1Ch (Unit 2) Temporary indicator: 1/1 system (Unit 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 06:00 on June 22			
Instrument failure	Instrument failure : down of instrument reading (over) scale/failure of instrument	Unit 1 CAMS D/W radiation monitor, spent fuel pool temperature Unit 2 Pressure in S/C, RPV Bellows Air temperature, 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, reactor pressure, pressure in D/W Unit 3 Reactor water level, reactor pressure, RPV bellow air temperature, CAMS D/W(A) radiation monitor			