

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 1:00 pm on May 17

Unit	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6
Status of water injection to the reactor	Injecting fresh water through the reactor feed water system Flow rate 6.0 m ³ /h (as of 11:50 am, May 17)	Injecting fresh water through the fire extinction system Flow rate 6.9 m ³ /h (as of 11:00 am, May 17)	Injecting fresh water through the reactor feed water system and the fire extinction system Flow rate through fire extinction system 9.0 m ³ /h (as of 11:00 am, May 17)		※2 (Water injection is unnecessary since heat removal of reactor is functioning)	
Water level in the reactor	Fuel range A: Fuel range B:-1700 mm (as of 12:20 pm, May 17)	Fuel range A:-1500 mm Fuel range B:-2100 mm (as of 11:00 am, May 17)	Fuel range A:-1950mm Fuel range B:-2200mm (as of 11:50 am, May 17)		Stoppage range 1934mm (as of 1:00 pm, May 17)	Stoppage range 2333mm (as of 1:00 pm, May 17)
Pressure in the reactor	Syatem A:0.503 MPag (A) System B:1.353 MPag (B) (as of 12:20 pm, May 17)	※3 Syatem A:-0.018 MPag (A) System B:-0.016 MPag (B) (as of 11:00 am, May 17)	※3 Syatem A:-0.094 MPag (A) System B:-0.087 MPag (B) (as of 11:50 am, May 17)		0.007MPa g (as of 1:00 pm, May 17)	0.016 MPa g (as of 1:00 pm, May 17)
Water temperature in the reactor	(Since there is no water inflow in the system it is impossible to collect the data)					
Temperature around the reactor vessel	Temperature in feed-water nozzle:88.3 °C ※3 Temperature at reactor vessel bottom:80.2 °C (as of 12:20 pm, May 17)	Temperature in feed-water nozzle:113.2 °C ※1 Temperature at reactor vessel bottom:108.8 °C (as of 11:00 am, May 17)	Temperature in feed-water nozzle:133.2°C ※3 Temperature at reactor vessel bottom:129.8 °C (as of 11:50 am, May 17)	※2 (Monitoring is unnecessary since all fuel are takeoff)	※2 (monitoring through water temperature in the reactor)	
Pressure in D/W・S/C	D/W:0.120 MPa abs S/C:0.100 MPa abs (as of 12:20 pm, May 17)	D/W:0.050 MPa abs S/C: (as of 11:00 am, May 17)	D/W:0.1015 MPa abs S/C:0.1915 MPa abs (as of 11:50 am, May 17)			
D/W Atmosphere temperature	RPV bellow seal:80.6 °C HVH return:78.5 °C (as of 12:20 pm, May 17)	RPV bellow seal: HVH return:108°C (as of 11:00 am, May 17)	RPV bellow seal:133.2 °C ※3 HVH return:162°C (as of 11:50 am, May 17)			
CAMS radiation monitor	D/W(A):1.05E+00Sv/h ※1 (B):2.18E+02Sv/h ※1 S/C(A):1.04E+00Sv/h ※3 (B):1.04E+00Sv/h ※3 (as of 11:00 am, May 17)	D/W(A):1.86E+01Sv/h ※1 (B):2.08E+01Sv/h ※1 S/C(A):3.37E-01Sv/h ※3 (B):5.89E+01Sv/h ※3 (as of 11:00 am, May 17)	D/W(A):8.59E+00Sv/h ※3 (B):5.32E+00Sv/h ※3 S/C(A):4.09E-01Sv/h ※3 (B):3.99E-01Sv/h ※3 (as of 11:50 am, May 17)		※2 (Monitoring is unnecessary since heat removal of reactor is functioning.)	
Temperature in S/C	System A:52.7 °C System B:52.5 °C (as of 11:00 am, May 17)	System A:64.3 °C System B:64.5 °C (as of 11:00 am, May 17)	System A:40.8°C System B:40.8°C (as of 11:50 am, May 17)			
Designed usable D/W pressure	0.384MPa g (0.485MPa abs)	0.384MPa g (0.485MPa abs)	0.384MPa g (0.485MPa abs)			
Designed usable D/W maximum pressure	0.427MPa g (0.528MPa abs)	0.427MPa g (0.528MPa abs)	0.427MPa g (0.528MPa abs)			
Temperature in the spent fuel pool	※1	48°C (as of 11:00 am, May 17)	62 °C (as of May 8) : ※4	84 °C (as of May 8) : ※4	43.0 °C (as of 1:00 pm, May 17)	39.5 °C (as of 1:00 pm, May 17)
FPC skimmer surge tank level	1750mm (as of 11:00 am, May 17)	3250mm (as of 11:00 am, May 17)	※1	5450mm (as of 11:50 am, May 17)	※2	
Power source	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 5:00 pm, May 17 - In the plant parameters as of 12:00 pm, May 16, the data of the pressure in the reactor of Unit 5 is corrected as follows: (Original) 0.003MPa g -> (Correction) 0.007MPa g			Common Fuel Storage 28°C (as of 6:30 am, May 17)	5u: Non-thermal mode (from 9:19 am, May 17)	6u: SHC mode (from 10:05 am, May 16)

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 collecting data
 ※3 : Continuously monitoring the status
 ※4 : Measured at SFP water sampling

Fukushima Daiichi Nuclear Power Station Supplemental explanation for the plant parameters

■ Supplemental explanation for each parameter

Item	Recording manner	Measurement manner	Data point/ Ch number or number of systems
Status of water injection to the reactor	Water inflow to the reactor/ methods of water injection are noted.	Temporary instrument	System 1 / 1
Water level in the reactors	Data measured by the water gauge, which monitor the fuel range	Main indicator	System A 1 / 1 Ch System B 1 / 1 Ch
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.	Measures voltage value through the main indicator panel and converts them to the pressure	System A 1 / 2 Ch System B 1 / 2 Ch
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 are noted among multiple data to view the whole picture.	Main indicator	Point of feed-water nozzle 1 / 4 Ch Reactor vessel bottom 1 / 2 Ch (Unit 1) 1 / 1 Ch (Unit 2/3)
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)	Unit 1/2: Main indicator Unit 3: Main indicator panel (converted from voltage) :	Main indicator system 1 / 1 Main recorder regular use 1 / 1 Ch wide range 1 / 1 Ch
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 / 5 Ch D/W HVH return 1 / 5 Ch
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 indicator	System A 1 / 4 Ch (Unit 1) , 8 Ch (Unit 2/3) System B 1 / 4 Ch (Unit 1) , 8 Ch (Unit 2/3)
Temperature in the spent fuel pool	Data from the instrument reading of main recorder (Non-thermal mode : Urgent Heat load Mode, SHC mode : Shut down Cooling Mode)	Main indicator	1 / 2 Ch (Unit 1) , 1 Ch (Unit 2~4)
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

Item	Contents	Status As of 1:00 pm , May 17
Instrument failure	Instrument failure : down(over) scale of instrument reading / failure of instrument	Unit 1 Spent fuel pool temperature, CAMS D/W radiation monitor Unit 2 Temperature at reactor vessel bottom pressure in S/C, RPV Bellows Air temperature Unit 3 Spent fuel pool temperature, Level of skimmer surge tanks Unit 4 Spent fuel pool temperature
Not covered for collecting data	Unit 4: Data on reactor and D/W are not collected since all fuel are takeoff. Unit 5/6: Data on D/W are not collected since heat removal of reactor is functioning	
Continuously monitoring the status	Inaccurate data defined from relation with other parameters such as hunting and negative value.	Unit 1 Reactor pressure, Feed-water nozzle, temperature CAMS S/C radiation monitor Unit 2 Reactor pressure, CAMS S/C radiation monitor Unit 3 Reactor pressure, RPV bellow air temperature, Feed-water nozzle temperature, CAMS S/C radiation monitor