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.

Unit 6

Stoppage range

1648mm

(as of 6:00, 8/27)

0.016 MPa g

(as of 6:00, 8/27)

29.5 °C

(as of 6:00, 8/27)

34.5 ℃

(as of 6:00, 8/27)

6u: SHC mode

(from 19:10,8/26)

₩2

As of 06:00 on August 27 Unit Unit 1 Unit 2 Unit 3 Unit 4 Unit 5 Fresh water feeding Fresh water feeding resh water feeding ×2 Status of water (Heat removal of the reactor is functioning, Water ²eed water system 3.8m³/h Feed water system 3.6m³/h Feed water system 7.1m³/h injection to the niection is unnecessary) as of 5:00, 8/27) (as of 5:00, 8/27) (as of 5:00, 8/27) reactor uel range A: Downscale Fuel range A:-1850 mm Fuel range A:-1550 mm ЖЗ Stoppage range *3 Water level in the -uel range B-1700 mm Fuel range B-2200 mm *3 Fuel range B-2000 mm жЗ 1890mm ж3 reactor (as of 5:00, 8/27) (as of 5:00, 8/27) (as of 5:00, 8/27) (as of 6:00, 8/27) System A:0.017 MPa g System A:0.013 MPa g System A:-0,181 MPa g (A) %3 0.008 MPa g Pressure in the System B:-MPa g System B:-MPa g System B-0.100 MPa g (C) ※3 reactor (as of 6:00, 8/27) as of 5:00, 8/27) (as of 5:00, 8/27) (as of 5:00, 8/27) 27.8 °C Water temperature of (as of 6:00, 8/27) (Since there is no water inflow in the system it is impossible to collect the data) the reactor Temperature in feed-water nozzle:91.9 °C Temperature in feed-water nozzle:107.0 °C Temperature in feed-water nozzle:113.7 °C *2 Temperature at reactor vessel bottom:87.4 °C Femperature at reactor vessel bottom 115.7 °C Temperature at reactor vessel bottom 109.1 °C Temperature around %2 (monitoring through water temperature of the (Monitoring is (as of 5:00, 8/27) (as of 5:00, 8/27) (as of 5:00, 8/27) the reactor vessel reactor) unnecessary since all fuel are /W:0.1245 MPa abs* D/W:0.114 MPa abs D/W:0.1015 MPa abs takeoff) Pressure in D/W · S/C:0,105 MPa abs S/C: Downscale Ж1 S/C:0.1817 MPa abs S/C (as of 5:00, 8/27) (as of 5:00, 8/27) (as of 5:00, 8/27) RPV bellow seal:87,2 °C RPV bellow seal:68°C жз RPV bellow seal:124.5 °C *3 D/W Atmosphere HVH return:89,1 °C HVH return:125°C HVH return:109.7 ℃ temperature as of 5:00, 8/27) (as of 5:00, 8/27) (as of 5:00, 8/27) (Monitoring is unnecessary since heat removal of D/W(A):0.00E+00Sv/h D/W(A):1.06E+01Sv/h D/W(A):3,58E+00Sv/h ЖЗ ×1 ×1 reactor is functioning.) (B):2.55E+00Sv/h (B):3.20E+02Sv/h (B):5.63E+00Sv/h Ж1 CAMS radiation S/C(A):6.77E-01Sv/h S/C(A):1.22E-01Sv/h S/C(A):3.15E-01Sv/h monitor (B):6.92E-01Sv/h (B):5.45E+00Sv/h **※**1 (B):2.99E-01Sv/h as of 5:00, 8/27) (as of 5:00, 8/27) (as of 5:00, 8/27) System A:45.4 °C System A:45.5 °C System A:46.6 °C System B:45.3 °C System B:46.5 °C System B:45.6 °C Temperature in S/C as of 5:00, 8/27) (as of 5:00, 8/27) (as of 5:00, 8/27) Designed usable D/V 0.384MPa g (0.485MPa abs) 0.384MPa g (0.485MPa abs) 0.384MPa g (0.485MPa abs) pressure Designed usable D/W 0.427MPa g (0.528MPa abs) 0.427MPa g (0.528MPa abs) 0.427MPa g (0.528MPa abs) maximum pressure 41°C Temperature in the 30.0℃ 35.0°C 32.3 °C 30.4 °C (as of 5:00 spent fuel pool (as of 5:00, 8/27) (as of 5:00, 8/27) (as of 5:00, 8/27) (as of 6:00, 8/27) 8/27) 5600mm FPC skimmer surge 2770mm 3050mm 3150mm (as of 5:00 tank level (as of 5:00, 8/27) (as of 5:00, 8/27) (as of 5:00, 8/27) 8/27) Power source Receiving offsite power (P/C2C) Receiving offsite power (P/C4D) Receiving offsite power Temperature in the Common Spent 5u: SHC mode Others *Data of Pressure in D/W of Unit 1 on 11/29 was corrected because it was incorrect. Fuel Storage: (from 10:43,8/8) 34°C (as of 6:20, 8/26)

Pressure conversion Gauge pressure(MPa g) = Absolute pressure(MPa abs) - atmospheric pressure (normal atmospheric pressure(0.1013 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

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	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)	(D/W) Unit 1:Main recorder Unit 2:Temporary Unit 3:Main instrument panel (converted from voltage) (S/C) Unit 1/2:Main indicator Unit 3 :Main instrument panel (converted from voltage)	(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	 Unit2, 4 are the FPC skimmer surge tank level measured main indicator, Unit1, 3 are the FPC skimmer surge tank level estimated from temporary pressure gages.(reference value) (FPC : Fuel Pool Cooling system) 	Unit2/4:Main indicator Unit1/3:Temporary instrument (Pressure gages)	Main indicator: 1/1system (Unit 2/4) Temporary instrument: 1/1system (Unit 1/3)

■Supplemental explanation for notes

Item	Contents	Status As of 06:00 on August 27	
Instrument failure	Instrument failure : down of instrument reading (over) scale/failure of instrument	Unit 1 CAMS D/W radiation monitor Unit 2 Pressure in S/C, CAMS D/W(B) radiation monitor, CAMS S/C(B) radiation monitor Unit 3 $-$	
Not covered for collecting data	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	