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.

| Δs of $\Omega S'$ | 00 on August 4 | | | | | | |
|--|--|--|---|-------------------------|---|---|--|
| 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 3.8m ³ /h (as of 5:00 , 8/4) | Fresh water feeding Feed water system 3.4m ³ /h (as of 5:00 , 8/4) | Fresh water feeding Feed water system 9.1m ³ /h (as of 5:00 , 8/4) | | | %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 , 8/4) | Fuel range A:-1850 mm %3 Fuel range B:-2150 mm %3 (as of 5:00 , 8/4) | Fuel range A:-1900mm Fuel range B:-2250mm (as of 5:00 , 8/4) | *3 *3 | | Stoppage range 1880mm (as of 6:00 , 8/4) | Stoppage range 2048mm (as of 6:00 , 8/4) |
| Pressure in the reactor | System A:0.022 MPa g System B:-MPa g (as of 5:00 , 8/4) | System A:0.035 MPa g System B-MPa g (as of 5:00 , 8/4) | System A:-0.170 MPa g System B:-0.104 MPa g (as of 5:00 , 8/4) | (A) %3 (C) %3 | | 0.012 MPa g (as of 6:00 , 8/4) | 0.018 MPa g (as of 6:00 , 8/4) |
| Water temperature of the reactor | (Since the | ere is no water inflow in the system it is impossible to colle | ect the data) | | | 25.3 °C (as of 6:00 , 8/4) | 26.5 °C (as of 6:00 , 8/4) |
| Temperature around the reactor vessel | Temperature in feed-water nozzle:104.1 °C Temperature at reactor vessel bottom:93.3 °C (as of 5:00 , 8/4) | Temperature in feed-water nozzle:111.9 °C Temperature at reactor vessel bottom:123.5 °C (as of 5:00 , 8/4) | Temperature in feed-water nozzle:116.2 °C Temperature at reactor vessel bottom:108.2 (as of 5:00 , 8/4) | C | %2 (Monitoring is unnecessary since all fuel are | %2 (monitoring through water temperature of the reactor) | |
| Pressure in D/W • S/C | <mark>D/₩0.1289 MPa abs*</mark> S/C:0.110 MPa abs (as of 5:00 , 8/4) | D/W:0.134 MPa abs S/C: Downscale | D/W:0.1016 MPa abs S/C:0.1841 MPa abs (as of 5:00 , 8/4) | | takeoff) | %2 (Monitoring is unnecessary since heat removal of reactor is functioning.) | |
| D/W Atmosphere temperature | RPV bellow seal:93.1 °C HVH return:94.8 °C (as of 5:00 , 8/4) | RPV bellow seal:107°C | RPV bellow seal:125.7 °C HVH return:118.8 °C (as of 5:00 , 8/4) | *3 | | | |
| CAMS radiation monitor | D/W(A):0.00E+00Sv/h | D/W(A):1.15E+01Sv/h (B):1.45E+01Sv/h S/C(A):1.55E-01Sv/h (B):6.79E+00Sv/h (as of 5:00 , 8/4) | D/W(A):3.87E+00Sv/h (B):2.81E+00Sv/h S/C(A):3.50E-01Sv/h (B):3.33E-01Sv/h (as of 5:00 , 8/4) | *3 | | | |
| Temperature in S/C | System A:45.7 °C System B:45.4 °C (as of 5:00 , 8/4) | System A:49.7 °C System B:49.6 °C (as of 5:00 , 8/4) | System A:45.6 °C System B:45.8 °C (as of 5:00 , 8/4) | | | | |
| 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 | 33.0°C (as of 5:00 , 8/4) | 31.0 °C (as of 5:00 , 8/4) | | 41°C (as of 5:00 , 8/4) | 28.3 °C (as of 6:00 , 8/4) | 37.5 °C (as of 6:00 , 8/4) |
| FPC skimmer surge tank level | ※ 1 | 1600mm (as of 5:00 , 8/4) | *1 | | 3650mm (as of 5:00 , 8/4) | *2 | |
| Power source | Receiving offsite power (P/C2C) Receiving offsite power (P/C4D) | | | Receiving offsite power | | | |
| Others | *Data of Pressure in D/W of Unit 1 on 11/29 was corrected because it was incorrect. | | | | Temperature in the Common Spent Fuel Storage: 32°C (as of 5:40 , 8/3) | 5u: SHC mode (from 14:45 ,7/15) | 6u: SHC mode (from 10:02 ,8/3) |
| Pressure conversion | rsion Gauge pressure(MPa g) = Absolute pressure(MPa abs) - atmospheric pressure (normal atmospheric pressure().1013 MPa) | | | | | | |

ersion Gauge pressure(IMPa g) = Absolute pressure(IMPa abs) – atmospheric pressure (normal atmospheric pressure(.1013 MPa) Absolute pressure(MPa abs) = Gauge pressure(MPa g) + atmospheric pressure (normal atmospheric pressure(.1013 MPa)

%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

| 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 throut the main indicator panel and converts the main indicator panel and | | 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 1/1Ch System B 1/1Ch S/C System A 1/1Ch System B 1/1Ch | | |
| 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 Unit3/4:Temporary indicator | Main:1 / 2Ch (Unit 1) 、1Ch (Unit 2) Temporary indicator: 1 / 1 system (Unit 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 06:00 on August 4 | | | |
|---------------------------------------|---|---|--|--|--|
| Instrument failure | Instrument failure : down of instrument reading (over) scale/failure of instrument | Unit 1 CAMS D/W radiation monitor, spent fuel pool temperature , Level of skimmer surge tanks Unit 2 Pressure in S/C, 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 | | | |