### Fukushima Daiichi Nuclear Power Station Plant Parameters

**As of 06:00 on September 22**

#### Unit 1

- **Status of water injection to the reactor**: Fresh water feeding
- **Water level in the reactor**: Fuel range A -1900 mm
- **Pressure in the reactor**: System A -0.174 MPa
- **Water temperature of the reactor**: Temperature around the reactor vessel

#### Unit 2

- **Fresh water feeding**: Feed water system 4.0 m³/h, CS line 4.0 m³/h

#### Unit 3

- **Fresh water feeding**: Feed water system 4.0 m³/h, CS line 4.0 m³/h

#### Unit 4

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

#### Unit 5

- **Temperature in feed-water nozzle**: 78.2 ℃
- **Temperature at reactor vessel bottom**: 82.3 ℃
- **D/W**: 0.1015 MPa abs
- **S/C**: 0.1874 MPa abs

#### Unit 6

- **Pressure in D/W**: System A: 51.3 ℃
- **Temperature in feed-water nozzle**: 100.9 ℃
- **Temperature at reactor vessel bottom**: 109.2 ℃
- **D/W**: 0.110 MPa abs
- **RPV bellow seal**: 111 ℃

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### Notes

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

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### Conversion Formulas

<table>
<thead>
<tr>
<th>Pressure Conversion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gauge pressure (MPa g) = Absolute pressure (MPa abs) - atmospheric pressure (normal atmospheric pressure 0.1013 MPa)</td>
</tr>
<tr>
<td>Absolute pressure (MPa abs) = Gauge pressure (MPa g) + atmospheric pressure (normal atmospheric pressure 0.1013 MPa)</td>
</tr>
</tbody>
</table>

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### Additional Information

- **Downscale**
- **Instrument failure**
- **Not covered for collecting data**
- **Continuously monitoring the status**
- **Monitoring is unnecessary since heat removal of reactor is functioning.**
- **Monitoring through water temperature of the reactor.**
- **Stoppage range**
- **Water level in the reactor**

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### Facts

- **Unit 1**: Status of water injection to the reactor: Fresh water feeding
- **Unit 2**: Water level in the reactor: Fuel range A -1900 mm
- **Unit 3**: Pressure in the reactor: System A -0.174 MPa
- **Unit 4**: Water temperature of the reactor: Temperature around the reactor vessel
- **Unit 5**: Temperature in feed-water nozzle: 78.2 ℃
- **Unit 6**: Temperature at reactor vessel bottom: 109.2 ℃

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### Data Collection

- **Data of Pressure in D/W of Unit 1 on 11/29 was corrected because it was incorrect.**

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### Power Source

- Receiving offsite power (P/C2C)
- Receiving offsite power (P/C4D)
- Receiving offsite power

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### Fuel Range

- **Unit 1**: Fuel range A -1900 mm
- **Unit 2**: Fuel range A -2000 mm
- **Unit 3**: Fuel range A -2400 mm
- **Unit 4**: Fuel range A -1900 mm
- **Unit 5**: Fuel range A -2300 mm
- **Unit 6**: Fuel range A -2200 mm

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### Additional Data

- **Temperature in the Common Spent Fuel Storage**
  - **Unit 1**: 39 ℃
  - **Unit 2**: 30.0 ℃
  - **Unit 3**: 30.0 ℃
  - **Unit 4**: 39 ℃
  - **Unit 5**: 30.0 ℃
  - **Unit 6**: 30.0 ℃

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### Pressure Data

- **Unit 1**: D/W: 0.1015 MPa abs
- **Unit 2**: S/C: 0.1874 MPa abs
- **Unit 3**: D/W: 0.1015 MPa abs
- **Unit 4**: S/C: 0.1874 MPa abs
- **Unit 5**: D/W: 0.1015 MPa abs
- **Unit 6**: S/C: 0.1874 MPa abs

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### Radiation Data

- **Unit 1**: CAMS radiation monitor: 0.384 MPa g ± 0.0485 MPa abs/g
- **Unit 2**: CAMS radiation monitor: 0.384 MPa g ± 0.0485 MPa abs/g
- **Unit 3**: CAMS radiation monitor: 0.384 MPa g ± 0.0485 MPa abs/g
- **Unit 4**: CAMS radiation monitor: 0.384 MPa g ± 0.0485 MPa abs/g
- **Unit 5**: CAMS radiation monitor: 0.384 MPa g ± 0.0485 MPa abs/g
- **Unit 6**: CAMS radiation monitor: 0.384 MPa g ± 0.0485 MPa abs/g

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### 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 pressure 0.1013 MPa)**
### Supplemental explanation for the plant parameters

<table>
<thead>
<tr>
<th>Item</th>
<th>Recording manner</th>
<th>Measurement manner</th>
<th>Ch number or number of systems</th>
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</thead>
<tbody>
<tr>
<td><strong>Status of water injection to the reactor</strong></td>
<td>Water inflow (CS line : Core Spray system)</td>
<td>Temporary</td>
<td>System 1/1</td>
</tr>
<tr>
<td><strong>Water level in the reactors</strong></td>
<td>Data measured by the water gauge, which monitor the fuel range</td>
<td>Main indicator</td>
<td>System A: 1/1Ch; System B: 1/1Ch</td>
</tr>
<tr>
<td><strong>Pressure in the reactors</strong></td>
<td>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.</td>
<td>Unit 1/2: Temporary; Unit 3: Measures voltage value through the main indicator panel and converts them to the pressure</td>
<td>Temporary indicator: 1/1 system; Main System A: 1/2Ch; System B: 1/2Ch</td>
</tr>
<tr>
<td><strong>Temperature in the reactor</strong></td>
<td>Since there is no water inflow at the points, where thermometers are set, no data is collected.</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td><strong>Temperature around the reactor vessel</strong></td>
<td>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.</td>
<td>Main recorder</td>
<td>Point of Feed-water nozzle 1/4Ch; Reactor vessel bottom 1/2Ch (Unit 1); 1/1Ch (Unit 2/3)</td>
</tr>
<tr>
<td><strong>Pressure in D/W - S/C</strong></td>
<td>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 Unit 2, the reading of the temporary indicator is described. (D/W : Dry Well, S/C : Suppression Chamber.)</td>
<td>(D/W): Unit 1: Main recorder; Unit 2: Temporary; Unit 3: Main instrument panel (converted from voltage)</td>
<td>(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 1/1 system (Unit 1/2); Main instrument panel 1/2Ch (Unit 3)</td>
</tr>
<tr>
<td><strong>D/W Atmosphere temperature</strong></td>
<td>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)</td>
<td>Unit 1: Main instrument panel (converted from voltage); Unit 2/3: Main recorder</td>
<td>RPV Bellows Air 1/5Ch; D/W HVH return 1/5Ch</td>
</tr>
<tr>
<td><strong>CAMS radiation monitor</strong></td>
<td>Data from the instrument reading of main indicator. (CAMS : Containment Atmospheric Monitoring System)</td>
<td>Main indicator</td>
<td>D/W: System A 1/1Ch; System B 1/1Ch; S/C: System A 1/1Ch; System B 1/1Ch</td>
</tr>
<tr>
<td><strong>Temperature in S/C</strong></td>
<td>Data from the instrument reading of main recorder. One representing value is noted among multiple data on each System A, B.</td>
<td>Main recorder</td>
<td>System A : 1/4Ch (Unit 1), 8Ch (Unit 2/3); System B : 1/4Ch (Unit 1), 8Ch (Unit 2/3)</td>
</tr>
<tr>
<td><strong>Temperature in the spent fuel pool</strong></td>
<td>Data from the instrument reading or from the measurement reading of samples of main indicator and temporary insutumment (Non-thermal mode : Urgent Heat load Mode, SHC mode : Shut Down Cooling Mode)</td>
<td>Unit 2/3: Main recorder; Unit 1/3: Temporary indicator</td>
<td>Main: 1/1Ch (Unit 2); Temporary indicator: 1/1 system (Unit 1/3)</td>
</tr>
<tr>
<td><strong>FPC skimmer surge tank level</strong></td>
<td>- Unit 2, 4 are the FPC skimmer surge tank level measured main indicator. - Unit 1, 3 are the FPC skimmer surge tank level estimated from temporary pressure pages (reference value) (FPC : Fuel Pool Cooling system)</td>
<td>Unit 2/4: Main indicator; Unit 1/3: Temporary instrument (Pressure pages)</td>
<td>Main indicator: 1/1 system (Unit 2/4); Temporary instrument: 1/1 system (Unit 1/3)</td>
</tr>
</tbody>
</table>

### Supplemental explanation for notes

<table>
<thead>
<tr>
<th>Item</th>
<th>Contents</th>
<th>Status As of 06:00 on September 22</th>
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<tbody>
<tr>
<td><strong>Instrument failure</strong></td>
<td>Instrument failure : down of instrument reading (over) scale: failure of instrument</td>
<td>Unit 1: CAMS D/W radiation monitor; Unit 2: Pressure in S/C, CAMS D/W/I radiation monitor, CAMS S/C/B radiation monitor; Unit 3: ---</td>
</tr>
<tr>
<td><strong>Not covered for collecting data</strong></td>
<td>Unit 4: Monitoring is not implemented since all fuel are takeoff. Unit 5/6: Monitoring is not implemented since heat removal of reactor is functioning</td>
<td>---</td>
</tr>
<tr>
<td><strong>Continuously monitoring the status</strong></td>
<td>Inaccurate Data defined from relation with other Parameters such as negative figure.</td>
<td>Unit 1: Reactor water level/I; Unit 2: Reactor water level, RPV bellow air temperature. Unit 3: Reactor water level, reactor pressure, RPV bellow air temperature, CAMS D/W/I radiation monitor</td>
</tr>
</tbody>
</table>