## Water leakage in Fukushima Daiichi NPS (found on Jan 29)

< Reference > January 31, 2012 Tokyo Electric Power Company

| N o | Time of the occurrence<br>(time of leakage stop,<br>leakage separation) | Leaking place/spot   | Leaked amount           | water shield | radioactivity<br>concentration<br>(Bq/cm3)  | Flow into the ocean | Impact to the system  | Airborne Radiation<br>(mSv/h)                         |
|-----|---|--|-------------------------|--------------|---|---------------------|---|---|
|     | January 29, 2012<br>9:35<br>(separation completed 10:15)                | Secondary Cooling Unit of SFP in Unit 4 (cooling coil)   | 40L<br>(4m × 10m × 1mm) | No           | filtered water  | No                  | 9:35 circulation cooling by<br>secondary system was suspended.<br>11:14 Cooling restored by<br>reactivating the pump of secondary<br>system | -   |
|     | January 29, 2012<br>9:50<br>(leakage stopped 9:55)                      | Emergency reactor injection pump on the hill 3C flow indicator (Flange part)                           | 600L                    | No           | RO water Cs-134:4.3E-02 Cs-137:5.4E-02 I-131:ND (1/28 analysis result of water at the RO exit)                | No<br>(estimated)   | No  | same radiation level as<br>surrounding<br>environment |
|     | January 29, 2012<br>10:05<br>(leakage stopped 10:05)                    | Water desalination (RO type) waste water supply pump A system minimum flow line flange (Flange part)   | 10L<br>(1m × 10m × 1mm) | Yes          | Cs-134:8.7E00<br>Cs-137:1.2E01<br>I-131:ND  | No                  | -   | :0.6<br>:35<br>(airborne) :0.11<br>(airborne) :2      |
|     | January 29, 2012<br>10:05<br>(leakage stopped 10:37)                    | Water desalination (evaporative concentration apparatus) Boiler B system (around feed water tank)      | 25L<br>(5m × 5m × 1mm)  | No           | filtered water  | No                  | -   | -   |
|     | January 29, 2012<br>10:05<br>(leakage stopped 10:37)                    | Water desalination (evaporative concentration apparatus) Boiler C system (around feed water tank)      |                         | No           | filtered water  | No                  | -   | -   |
|     | January 29, 2012<br>10:02<br>(leakage stopped 10:03)                    | Flow indicator of reactor injection pump injecting water from Unit 3 condensate storage tank to Unit 2 | 4L<br>(2m × 2m × 1mm)   | No           | RO water Cs-134:4.3E-02 Cs-137:5.4E-02 I-131:ND (1/28 analysis result of water at the RO exit)                | No                  | No  | same radiation level as<br>surrounding<br>environment |
|     | January 29, 2012<br>10:09<br>(leakage stopped 10:11)                    | Flow indicator of reactor injection pump injecting water from Unit 3 condensate storage tank to Unit 3 | 4L<br>(2m × 2m × 1mm)   | No           | RO water<br>Cs-134:4.3E-02<br>Cs-137:5.4E-02<br>I-131:ND<br>(1/28 analysis result of<br>water at the RO exit) | No                  | No  | same radiation level as<br>surrounding<br>environment |
|     | January 29, 2012<br>11:07<br>(leakage stopped 11:24)                    | Header of make up water line of filtered water to the SFP (cooling coil)                               | 9L<br>(3m × 3m × 1mm)   | No           | filtered water  | No                  | -   | -   |

| Νo | Time of the occurrence<br>(time of leakage stop,<br>leakage separation)              | Leaking place/spot  | Leaked amount             | water shield | radioactivity<br>concentration<br>(Bq/cm3)               | Flow into the ocean | Impact to the system   | Airborne Radiation<br>(mSv/h)                         |
|----|--|---|---------------------------|--------------|--|---------------------|--|---|
|    | January 29, 2012<br>11:06<br>(being received as a<br>temporary measure)              | Water desalination (evaporative concentration apparatus) demineralizer resin transfer line flange (Flange part) | 0.5L<br>(1m × 0.5m × 1mm) | Yes          | treated water<br>Cs-134:ND<br>Cs-137:4.9E-02<br>I-131:ND | No                  | -  | same radiation level as<br>surrounding<br>environment |
|    | January 29, 2012<br>approx. 12:00<br>(leakage stopped at the time<br>of being found) | Flow indicator of filtered water backwashing line of evaporative concentration apparatus boiler feed water      | 18L<br>(6m × 3m × 1mm)    | Yes          | filtered water   | No                  | -  | -   |
|    | January 29, 2012<br>approx 13:00<br>(leakage stopped)                                | Flow indicator of filtered water line of purification instrument  | 1L                        | No           | filtered water   | No                  | -  | -   |
|    | January 29, 2012<br>approx 10:50<br>(repair completed 16:00)                         | Coolant water line flange of Unit 6 circulating water pump (Flange part)  | 7000L                     | No           | Pure water   | No                  | Seawater pump was temporarily suspended for the repair of leaking spot (already reactivated) | -   |
|    | January 29, 2012<br>approx 15:00<br>(leakage stopped)                                | Flow indicator of waste water line of purification instrument   | 9L<br>(9m × 3m × 1mm)     | Yes          | Pure water   | No                  | -  | -   |
|    | January 29, 2012<br>approx 15:10<br>(leakage stopped)                                | make up water valve of filtered water of<br>Unit 3 SFP cooling system (make up water<br>header (valve box))     | 50L<br>(5m×10m×1mm)       | No           | filtered water   | No                  | -  | -   |