Leak from the dikes at H5 tank area and G6 north tank area

<Reference>
December 24, 2013
Tokyo Electric Power Company

1. Overview of the leak from the dikes at H5 tank area (on December 21 and 22)

● **On December 21**

At around 4:15 PM: A TEPCO employee confirmed that water was leaking from the bottom part of the west dike at H5 tank area, after receiving a report on the water leak from the dike at H5 tank area from a patrolman of an associated company

At around 6:00 PM: Sand bags and plastic sheet were installed as a water pan at the leaking point, so that they could receive water.

At 7:12 PM: A temporal pump was installed inside the sand bags and the plastic sheet, and then the water transfer from there to the dike was started.

At 11:35 PM: Water inside the dike at H5 tank area was transferred to the dike at H6 tank area.

● **On December 22**

At 2:40 AM: The water transfer from H5 tank area to H6 tank area was stopped.

From 8:00 to 10:00 AM: The construction joints of the concrete foundation (the leaking point) was repaired with sealing agent.
→The amount of the water leak from the west dike at H5 tank area decreased, but did not completely stopped.

At around 4:13 PM: A patrolman of an associated company found another water leak from the north-east dike at H5 tank area. Later, sand bags and plastic sheet was installed
to receive the water. In addition, a temporal pump was installed inside the plastic pump.

At around 5:40 PM: Water transfer from the water pan to the inside the dike was started.

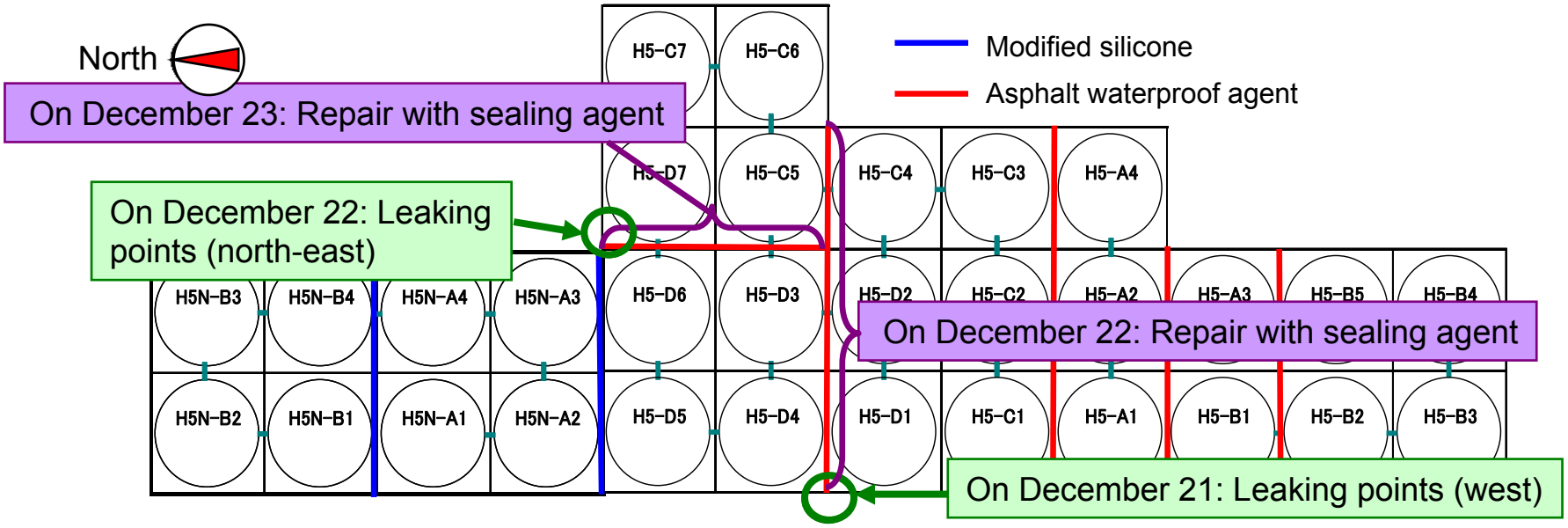
● **On December 23**

From 8:15 to 10:00 AM: The construction joints of the concrete foundation (the leaking point) were repaired with sealing agent.

＝＝＝Continuously observing the leak status＝＝＝

At 3:20 PM: We confirmed the water leak from the west and north-east dikes at H5 tank area stopped.

2. The leaking points from the dikes at H5 tank area etc.



*The concrete foundation is divided into 8 parts at the construction joints on the blue line or red line.

3. Estimated causes for the leak from H5 tank area

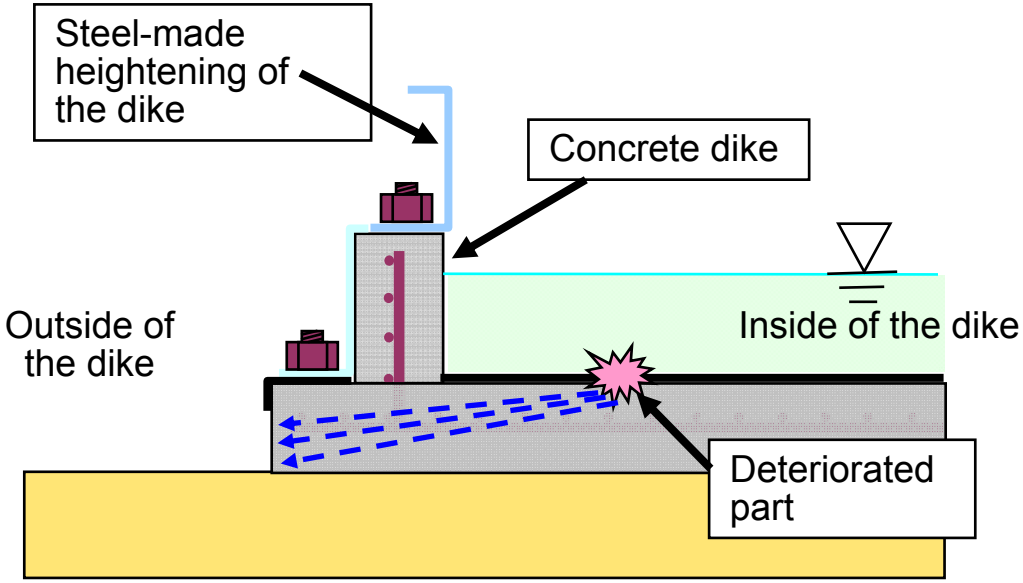
- The water stop seals applied on the concrete construction joints are estimated to have deteriorated.
  → After the dike filled with water, the seals are estimated to have gone hydrophilic (easily familiarized with water), and it accelerated the deterioration of the seals.

- From the deteriorated parts, rainwater inside the dike is estimated to have soaked into the construction joints, and have leaked into the outside the dike via construction joints.

[West dike at H5 tank area]

Photo taken on December 22
Source: Tokyo Electric Power Company

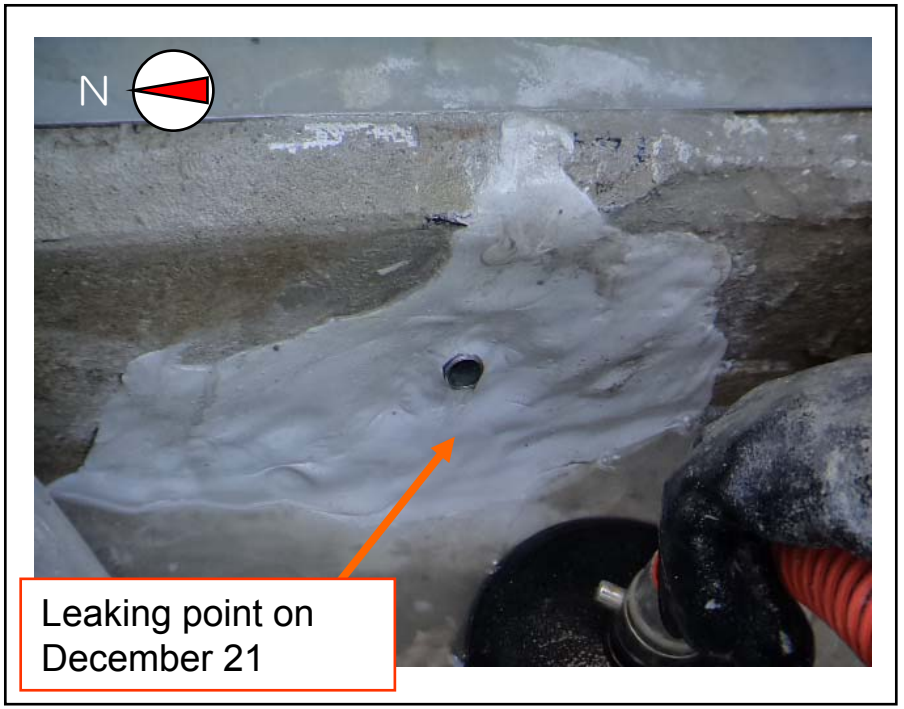
[Tank dike in section]



4. Results of the treatment at H5 tank area

[Repair with sealing agent inside the dike at H5 tank area]*

[Repair with sealing agent at the west dike at H5 tank area]*



*Both photos taken on December 22

Source: Tokyo Electric Power Company

5. Overview of the leak from the dike at G6 north area (on December 22)

● **On December 22**

At around 4:33 PM: A patrolman of an associated company found the water leak from the bottom part of the north dike at G6 north tank area.

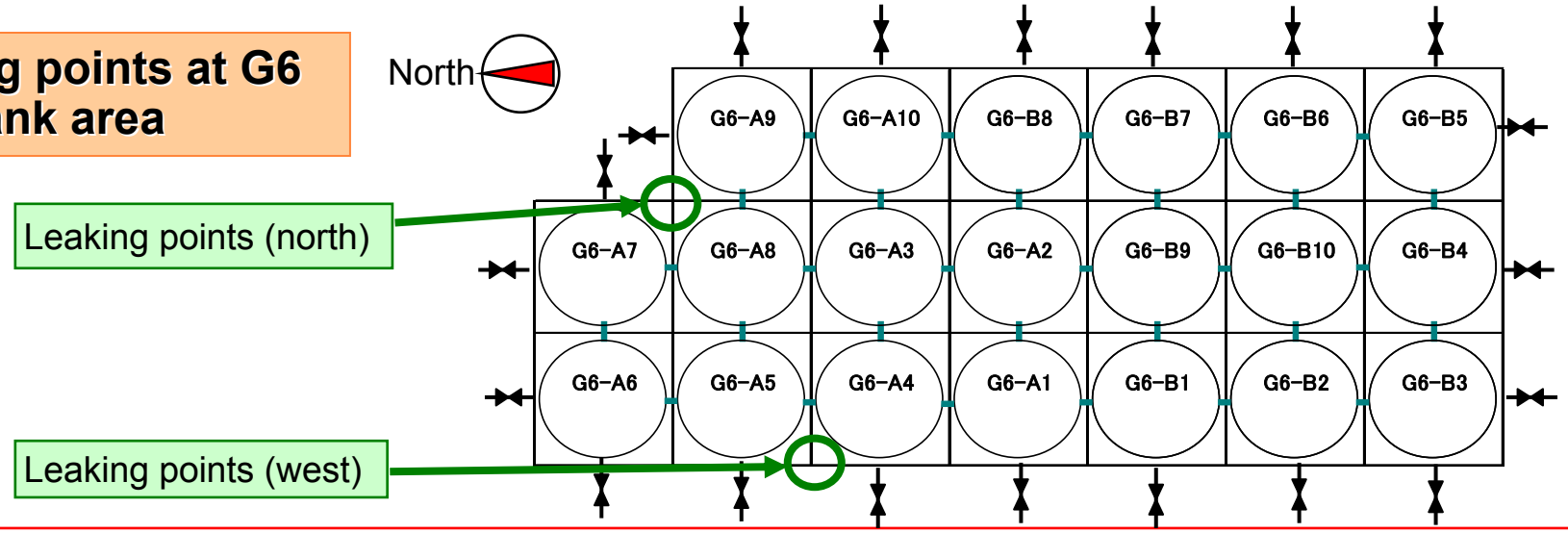
At around 6:40 PM: The patrolman of an associated company found another water leak from the crack on the west dike at G6 north tank area.

At 7:20 PM: Water transfer from inside the dike at G6 north tank area to G6 south tank area started.

At 9:15 PM: The following treatments implemented after finding the leak completed.

- ✓Sand bags and plastic sheet were installed as a water pan at the leaking point (the outside of the dike) at G6 north tank area.
- ✓The crack on the west dike at G6 north tank area (which caused the leak) was repaired with caulking agent. (The leak from the west dike stopped.)

6. Leaking points at G6 north tank area



7. Estimated cause for the leak from the dike at G6 north tank area

- The crack on the concrete enlarged, as the temperature lowers, and it is estimated water inside the dike leaked from there.
  →Generally speaking, cracks on concrete have tendency to enlarge, as the temperature lowers.
- The water stop seal will be applied to the crack on the surface of the concrete foundation.

[Crack on the north dike at G6 north tank area]*

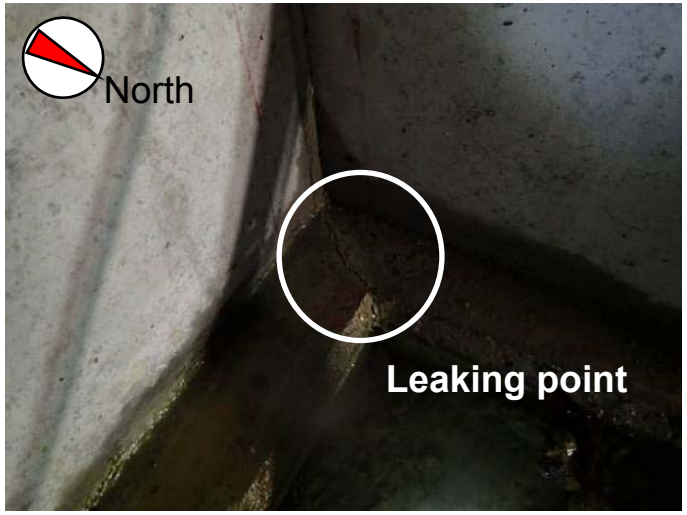


Photo taken on December 22, 2013

8. Whole measure

- **Currently, the protection pavement has been implemented at all the concrete foundations.**

[H2 south tank area after implementing protection pavement]*

Photo taken in November, 2013

*Both photos taken by Tokyo Electric Power Company