Suspension of the cooling system for spent fuel pool due to the shut down of the component cooling seawater system at Unit 5 of Fukushima Daiichi Nuclear Power Station (updated at 17:30 on July 8)

<Reference>
July 7, 2014
Tokyo Electric Power Company

1. Timeline

July 6, 2014

11:25 or around — A leakage in the size of one finger thickness was discovered by TEPCO employees (on duty) on patrol, which is made from the thermal insulator installed nearby the outlet adjustment valve (V-37-91B) of the heat exchanger for the thermal materials seawater system and reactor component cooling water system located on the northeast side of the 1st floor of the unit 5 reactor building.

* The leaked water was indentified as seawater through relevant analysis.
Chloride concentration: 1,600 ppm
Cs134/ Cs137: For both, showed below the detection limit value.

[To identify the leakage spot, RCW*/FPC* as the major workload and System SW* were shutdown.]

13:10 — Shutdown FPC Pump (A) [Pool water temp. at the shutdown: 23.0 ℃/ Temp. rise rate: 0.193 ℃/ h]
13:14 — Shutdown RCW Pump (C)
13:17 — Shutdown SW Pump (A)
13:26 — "Closed" position on V-37-91A, 91 B
13:34 — Confirmed that the leakage from the relevant spot has stopped.
14:00 — Confirmed that there was a hole with 3 mm in diameter opened in the valve itself.

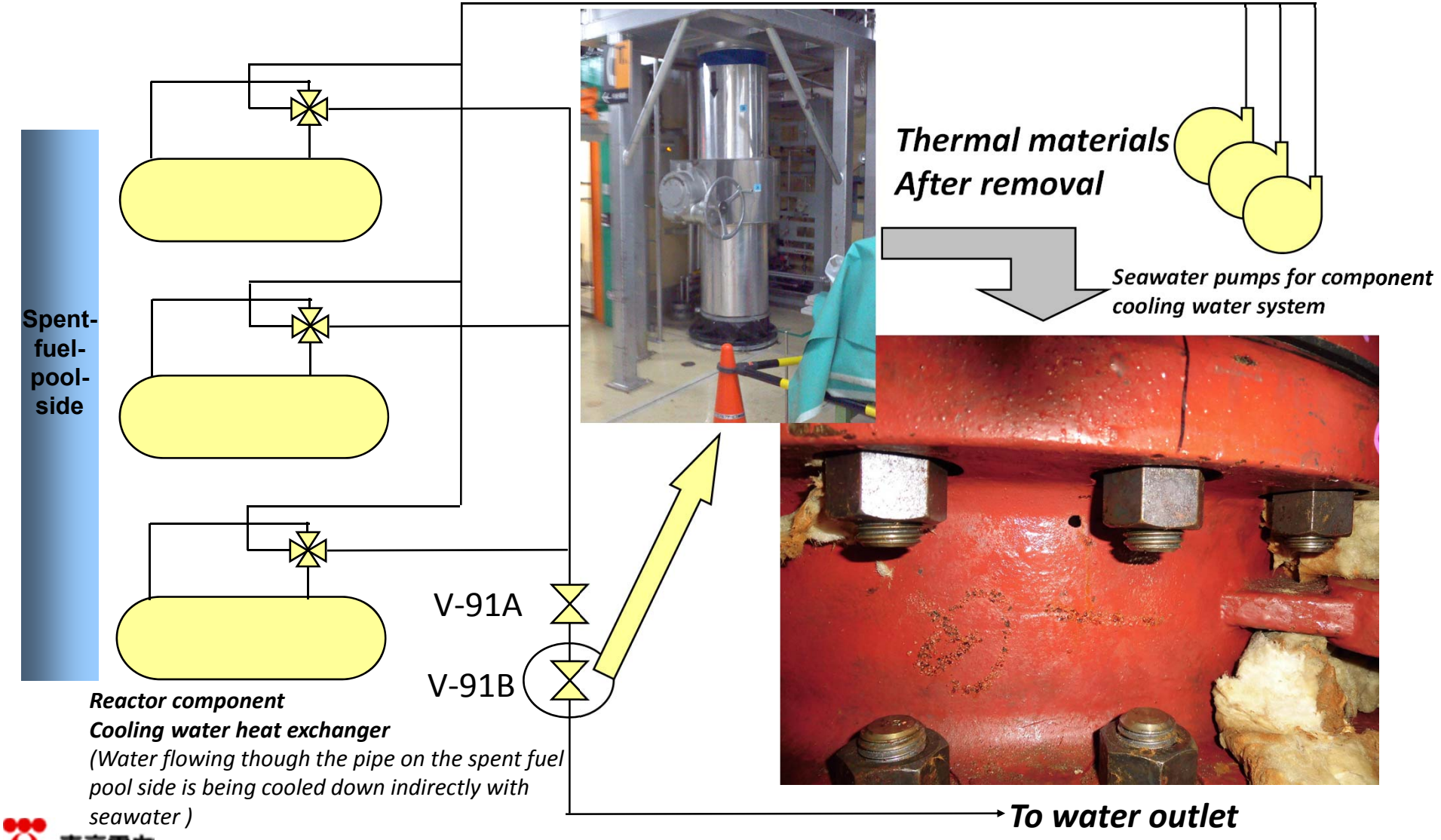
July 8

15:40 — Restarted the operation of the cooling system for the spent fuel pool using the system to cool down the reactor. (updated on July 8)

[Reference] (all figures shown below are approximate)
Leakage volume: 1,310 litters
- 1F, Reactor bldg.: 2 m X 3 m X 5 mm in depth (30 litters)
- Intermediate basement Fr,: Reactor bldg. 10 m X 8 m X 10 mm in depth (800 litters)
- Basement, Reactor bldg.: 10 m X 3 m X 1 mm in depth (30 litters)
- Basement, Reactor bldg.: (6 m X 3 m X 50 mm in depth)/ 2 (450 litters)

*: System SW: Component cooling seawater system, RCW: Reactor component cooling water system, and FPC: Spent fuel pool cooling purification system

2. Leakage spot (scheme)



Reactor component
Cooling water heat exchanger
(Water flowing though the pipe on the spent fuel pool side is being cooled down indirectly with seawater)

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3. Provisional repairs

[1] Provisional repair with hardening agent

[2] Provisional repair with hardening agent