Water Leakage from the Desalination System (RO3) at Fukushima Daiichi Nuclear Power Station

Date and time: December 26, 2012 at around 10:10 AM **Location**: In the temporary warehouse of the desalination system (RO3) **Outline**

1. At around 10:10 AM, a cooperative company worker accidentally had the anti-freeze sheet contact the vent pipe while repairing the sheet in RO3 temporary warehouse. The vent pipe was damaged and water leaked from the damaged part as a result. The damaged part was immediately isolated by closing the valves located in the front and back. After confirming that the leakage had stopped, the worker reported the incident to TEPCO.

2. At 10:16 AM, RO3 was manually stopped.

Estimated leakage amount: Approx. 10L (Approx. 5m x 1m x 2mm (depth)) The leaked water remains in the dam and has not flowed outside of the system. **Radiation dose measurement results** (Atmosphere dose rates)

: 0.5 [mSv/h], + : 2.0 [mSv/h]

Leakage location: RO3 UF (Ultra Filter) cassette vent line

Cause: Anti-free sheet accidentally contacted and damaged the vent pipe **Countermeasure**: Installation of protection cover on small diameter branch lines is being considered.

From the **Overview of the Desalination System** decontamination system Filtrate water tank SPT waste liquid **Leakage location** discharge pump Desalination system (RO) SPT receiving tank 1A/B RO treatment water **RO** treatment water transfer pump supply pump water transfer pump SPT(B) P Ρ **Buffer tank** Waste liquid **RO** treatment SPT receiving tank RO treatment **RO** supply water receiving water temporary Waste liquid RO pump tank storage supply tank To the reactor **Evaporative concentrated** RO concentrated water **RO** concentrated. treatment water **Evaporative concentrated** receiving tank water supply pump transfer pump treatment water storage Ρ Evaporative concentration system D **RO** concentrated water **Distilled water Concentrated** storage transfer pump 1A/B/C transfer pump treatment Concentrated water supply pump water tank Ρ Ρ **RO** concentrated Ρ 2A/Bwater storage Concentrated treatment Concentrated **Distilled water** water supply pump **RO** concentrated water water receiving tank tank transfer pump 3A/B/C

Concentrated water

transfer pump

RO concentrated water

temporary storage

Concentrated waste liquid storage Concentrated water tank

RO unit for

desalination

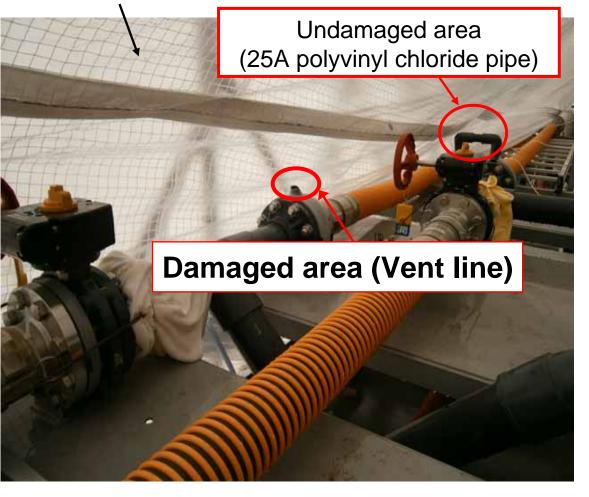
Desalination unit

Leakage Location

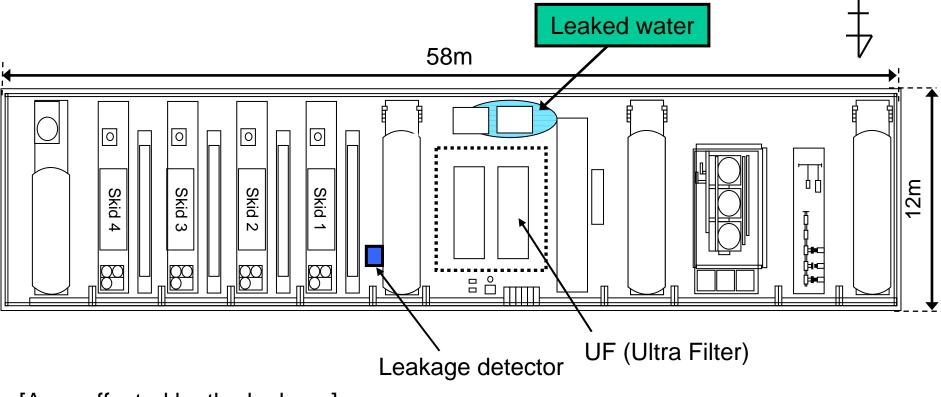


Leakage area (Full view)

Anti-freeze sheet



Water Leakage in the Desalination System (RO3)



Desalination system (RO3) temporary warehouse

[Area affected by the leakage]

Approx. 5m x 1m x 2mm (Depth)

[Estimated leakage amount]

Approx. 10L