

## 1. Preventive and Multi-layered Measures against Contaminated Water Issue

### 1) **Remove** sources of contamination key measures already being implemented or decided :

- Remove contaminated water in the trenches and isolate the trenches
- Treat contaminated water with multi-nuclide removal equipment (ALPS)
- Install high performance multi-nuclide removal equipment at government expenditure

#### Key additional measures :

- Install more multi-nuclide removal equipment
- Take measures to prevent water leakage from tanks (capturing strontium contained in the soil)
- Clean up sea water in the harbor

### 2) **Isolate** water from contamination key measures already being implemented or decided :

- Pump up groundwater for by-passing
- Pump up ground water from sub-drains near buildings
- Install land-side frozen soil impermeable walls at government expenditure
- Pave the area between building and sea

#### Key additional measures :

- Implement “broader area pavement (surface waterproofing) in the site” or “limited area pavement with an impermeable enclosure”, also consider dose-reduction measures (e.g. decontamination of land surface)
- Install gutters at top of tanks

### 3) **Prevent leakage** of contaminated water key measures already being implemented or decided :

- Improve soil with sodium silicate
- Install sea-side impermeable walls
- Install further tanks (replace bolted-joint tanks with welded-joint tanks)

#### Key additional measures:

- Accelerate installation of welded-joint tanks
- Prepare countermeasures against large tsunami (e.g. install watertight doors into buildings)
- Prevent contaminated water leakage from buildings
- Reduce length of contaminated water transfer piping

- Need to accelerate **installation of further tanks** to the extent possible with combined efforts of public- and private-sectors, such as encouraging cooperation of relevant business operators, together with acceleration of installing welded-joint tanks, in order to secure enough storage capacity of tanks in preparation for waves on the surface of the liquid caused by earthquake.
- Press forward the efforts such as verification of technology with Fiscal Year 2013 Supplementary Budget for the additional **measures with high technical difficulties** such as the measures to clean up the sea water in the harbor and to remove radioactive materials in the soil.
- Make a comprehensive evaluation of all options for **tritiated water** containing residual risks as soon as possible and consider appropriate measures.

## 2. Enhanced Communication as Measures to Prevent Damage to Reputation

- Provide evidence-based information in an internationally open manner. Under the cooperation of relevant ministries, enhance the integrated communication of the Team for Decommissioning and Contaminated Water Countermeasure.