Radiation concentrations measured at the multi-nuclide removal equipment (ALPS) outlet (as of December 31, 2021)
Radiation concentrations measured at the multi-nuclide removal equipment (ALPS) outlet (Cesium-137 concentration)

Existing ALPS (Cesium-137)

Additionally installed ALPS (Cesium-137)

※ 1 “ND” means that concentrations were below detectable limits.
Radiation concentrations measured at the multi-nuclide removal equipment (ALPS) outlet (Cesium-137 concentration)

- Regulatory concentration limit (90 Bq/L)
- Prior to treatment (ND) ※1
- Equipment outlet (ND) ※1
- Prior to treatment
- Equipment outlet

※ 1 “ND” means that concentrations were below detectable limits.
Radiation concentrations measured at the multi-nuclide removal equipment (ALPS) outlet (Cesium-134 concentration)

**Existing ALPS (Cesium-134)**

- **Cesium-134 Concentration (Bq/L)**
- **Time Periods:** 2013/4/1 to 2021/12/31
- **Graphical Symbols:**
  - Prior to treatment
  - Prior to treatment (ND)
  - Equipment outlet A
  - Equipment outlet A (ND)
  - Equipment outlet B
  - Equipment outlet B (ND)
  - Equipment outlet C
  - Equipment outlet C (ND)

**Additionally installed ALPS (Cesium-134)**

- **Cesium-134 Concentration (Bq/L)**
- **Time Periods:** 2013/4/1 to 2021/12/31
- **Graphical Symbols:**
  - Prior to treatment
  - Prior to treatment (ND)
  - Equipment outlet A
  - Equipment outlet A (ND)
  - Equipment outlet B
  - Equipment outlet B (ND)
  - Equipment outlet C
  - Equipment outlet C (ND)

※ 1 “ND” means that concentrations were below detectable limits.
Radiation concentrations measured at the multi-nuclide removal equipment (ALPS) outlet (Cesium-134 concentration)

※ 1 “ND” means that concentrations were below detectable limits.
Radiation concentrations measured at the multi-nuclide removal equipment (ALPS) outlet (Strontium-90 concentration)

Existing ALPS (Strontium-90)

Additionally installed ALPS (Strontium-90)

※ 1 “ND” means that concentrations were below detectable limits.
Radiation concentrations measured at the multi-nuclide removal equipment (ALPS) outlet (Strontium-90 concentration)

※1 “ND” means that concentrations were below detectable limits.
Radiation concentrations measured at the multi-nuclide removal equipment (ALPS) outlet (Cobalt-60 concentration)

Existing ALPS (Cobalt-60)

Additionally installed ALPS (Cobalt-60)

※ 1 “ND” means that concentrations were below detectable limits.
Radiation concentrations measured at the multi-nuclide removal equipment (ALPS) outlet (Cobalt-60 concentration)

※ 1 “ND” means that concentrations were below detectable limits.
Radiation concentrations measured at the multi-nuclide removal equipment (ALPS) outlet (Antimony-125 concentration)

Existing ALPS (Antimony-125)

Additionally installed ALPS (Antimony-125)

※1 “ND” means that concentrations were below detectable limits.
Radiation concentrations measured at the multi-nuclide removal equipment (ALPS) outlet (Antimony-125 concentration)

※ 1 “ND” means that concentrations were below detectable limits.
Radiation concentrations measured at the multi-nuclide removal equipment (ALPS) outlet (Ruthenium-106 concentration)

![Graph showing radiation concentrations over time for Existing ALPS (Ruthenium-106) and Additionally installed ALPS (Ruthenium-106)].

※ 1 “ND” means that concentrations were below detectable limits.
Radiation concentrations measured at the multi-nuclide removal equipment (ALPS) outlet (Ruthenium-106 concentration)

※ 1 “ND” means that concentrations were below detectable limits.
Radiation concentrations measured at the multi-nuclide removal equipment (ALPS) outlet (Iodine-129 concentration)

※ 1 “ND” means that concentrations were below detectable limits.
Radiation concentrations measured at the multi-nuclide removal equipment (ALPS) outlet (Iodine-129 concentration)

※1 “ND” means that concentrations were below detectable limits.
Radiation concentrations measured at the multi-nuclide removal equipment (ALPS) outlet (Gross β concentration)

![Graph of Existing ALPS (Gross β)]

![Graph of Additionally installed ALPS (Gross β)]

※ 1 “ND” means that concentrations were below detectable limits.
Radiation concentrations measured at the multi-nuclide removal equipment (ALPS) outlet (Gross β concentration)

※ 1 “ND” means that concentrations were below detectable limits.
Radiation concentrations measured at the multi-nuclide removal equipment (ALPS) outlet (Manganese-54 concentration)

- **Existing ALPS (Manganese-54)**
- **Additionally installed ALPS (Manganese-54)**

> Regulatory concentration limit (1,000 Bq/L)
- ● Prior to treatment
- ○ Prior to treatment (ND) ※1
- ▲ Equipment outlet A (ND) ※1
- △ Equipment outlet B (ND) ※1
- ◇ Equipment outlet C (ND) ※1
- ■ Equipment outlet A
- □ Equipment outlet A (ND) ※1
- ▲ Equipment outlet B
- △ Equipment outlet B (ND) ※1
- ◇ Equipment outlet C
- ○ Equipment outlet C (ND) ※1

*ND* means that concentrations were below detectable limits.
Radiation concentrations measured at the multi-nuclide removal equipment (ALPS) outlet (Manganese-54 concentration)

※ 1 “ND” means that concentrations were below detectable limits.
Radiation concentrations measured at the multi-nuclide removal equipment (ALPS) outlet (Strontium-89 concentration)

Existing ALPS (Strontium-89)

Additionally installed ALPS (Strontium-89)

※ 1 “ND” means that concentrations were below detectable limits.
Radiation concentrations measured at the multi-nuclide removal equipment (ALPS) outlet (Strontium-89 concentration)

※1 “ND” means that concentrations were below detectable limits.
Radiation concentrations measured at the multi-nuclide removal equipment (ALPS) outlet (Technetium-99 concentration)

**Existing ALPS (Technetium-99)**

- Regulatory concentration limit (1,000 Bq/L)
- Prior to treatment (ND) *1
- Equipment outlet A (ND) *1
- Equipment outlet B (ND) *1
- Equipment outlet C (ND) *1

**Additionally installed ALPS**

- Regulatory concentration limit (1,000 Bq/L)
- Prior to treatment
- Equipment outlet A
- Equipment outlet B
- Equipment outlet C

※ 1 “ND” means that concentrations were below detectable limits.
Radiation concentrations measured at the multi-nuclide removal equipment (ALPS) outlet (Technetium-99 concentration)

※ 1 “ND” means that concentrations were below detectable limits.
Radiation concentrations measured at the multi-nuclide removal equipment (ALPS) outlet (Carbon-14 concentration)

※1 “ND” means that concentrations were below detectable limits.
Radiation concentrations measured at the multi-nuclide removal equipment (ALPS) outlet (Rhodium-106 concentration)

### Existing ALPS (Rhodium-106)

- **Regulatory concentration limit (300,000 Bq/L)**
- Prior to treatment
- Prior to treatment (ND) ※1
- Equipment outlet A (ND) ※1
- Equipment outlet B (ND) ※1
- Equipment outlet C (ND) ※1

### Additionally installed ALPS (Rhodium-106)

- **Regulatory concentration limit (300,000 Bq/L)**
- Prior to treatment
- Prior to treatment (ND) ※1
- Equipment outlet A (ND) ※1
- Equipment outlet B (ND) ※1
- Equipment outlet C (ND) ※1

※ 1 “ND” means that concentrations were below detectable limits.
Radiation concentrations measured at the multi-nuclide removal equipment (ALPS) outlet (Rhodium-106 concentration)

※1 “ND” means that concentrations were below detectable limits.
Radiation concentrations measured at the multi-nuclide removal equipment (ALPS) outlet (Gross α concentration)

Existing ALPS (Gross α)

Additionally installed ALPS (Gross α)

※ 1 “ND” means that concentrations were below detectable limits.
Radiation concentrations measured at the multi-nuclide removal equipment (ALPS) outlet (Gross α concentration)

※ 1 “ND” means that concentrations were below detectable limits.
Tritium (H-3) concentration trends at desalination (RO) equipment inlets

※ 1 “ND” means that concentrations were below detectable limits.