Radiation concentrations measured at the multi-nuclide removal equipment (ALPS) outlet (as of September 30, 2022)
Radiation concentrations measured at the multi-nuclide removal equipment (ALPS) outlet (Cesium-137 concentration)

Existing ALPS (Cesium-137)

![Graph showing radiation concentrations for existing ALPS (Cesium-137)]

Additionally installed ALPS (Cesium-137)

![Graph showing radiation concentrations for 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)

High-performance ALPS (Cesium-137)

- 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)

Additionally installed ALPS (Cesium-134)

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

![Graph showing radiation concentrations measured at the multi-nuclide removal equipment (ALPS) outlet (Cesium-134 concentration).](image)

※ 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)

- **Strontium-90 Concentration (Bq/L)**
  - 10,000,000,000
  - 1,000,000,000
  - 100,000,000
  - 10,000,000
  - 1,000,000
  - 100,000
  - 10,000
  - 1,000
  - 100
  - 10
  - 1
  - 0.1
  - 0.01


### Additionally installed ALPS (Strontium-90)

- **Strontium-90 Concentration (Bq/L)**
  - 10,000,000,000
  - 1,000,000,000
  - 100,000,000
  - 10,000,000
  - 1,000,000
  - 100,000
  - 10,000
  - 1,000
  - 100
  - 10
  - 1
  - 0.1
  - 0.01


**Legend**
- ● Regulatory concentration limit (30 Bq/L)
- ○ Prior to treatment (ND) ※1
- □ Equipment outlet A (ND) ※1
- △ Equipment outlet B (ND) ※1
- ◇ Equipment outlet C (ND) ※1

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

- High-performance ALPS (Strontium-90)

※ 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)

- Regulatory concentration limit (200 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 (Cobalt-60)

- Regulatory concentration limit (200 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 (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)

**Existing ALPS (Ruthenium-106)**

![Graph showing radiation concentrations over time for existing ALPS.]

- Regulatory concentration limit (100 Bq/L)
- Prior to treatment (ND) ※1
- Equipment outlet A (ND) ※1
- Equipment outlet B (ND) ※1
- Equipment outlet C (ND) ※1

- Prior to treatment
- Equipment outlet A
- Equipment outlet B
- Equipment outlet C

**Additionally installed ALPS (Ruthenium-106)**

![Graph showing radiation concentrations over time for additionally installed ALPS.]

- Regulatory concentration limit (100 Bq/L)
- Prior to treatment (ND) ※1
- Equipment outlet A (ND) ※1
- Equipment outlet B (ND) ※1
- Equipment outlet C (ND) ※1

- 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 (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)

Existing ALPS (Iodine-129)

Additionally installed ALPS (Iodine-129)

※ 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 showing radiation concentrations over time for Existing ALPS (Gross β) and 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)

![Graph showing radiation concentrations over time for Existing ALPS and Additionally installed ALPS.]

- **Existing ALPS (Manganese-54)**
  - Regulatory concentration limit (1,200 Bq/L)
  - Prior to treatment (ND) ※1
  - Equipment outlet A (ND) ※1
  - Equipment outlet B (ND) ※1
  - Equipment outlet C (ND) ※1
  - Prior to treatment
  - Equipment outlet A
  - Equipment outlet B
  - Equipment outlet C

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

High-performance ALPS (Manganese-54)

※ 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)

※ 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)

Existing ALPS (Carbon-14)

Additionally installed ALPS (Carbon-14)

※ 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 (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
  - 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 (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.
【H-3】

Tritium (H-3) concentration trends at desalination (RO) equipment inlets

- Regulatory concentration limit (60,000 Bq/L)
- Tritium (desalination (RO) equipment inlets)

Tritium Concentration (Bq/L)

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