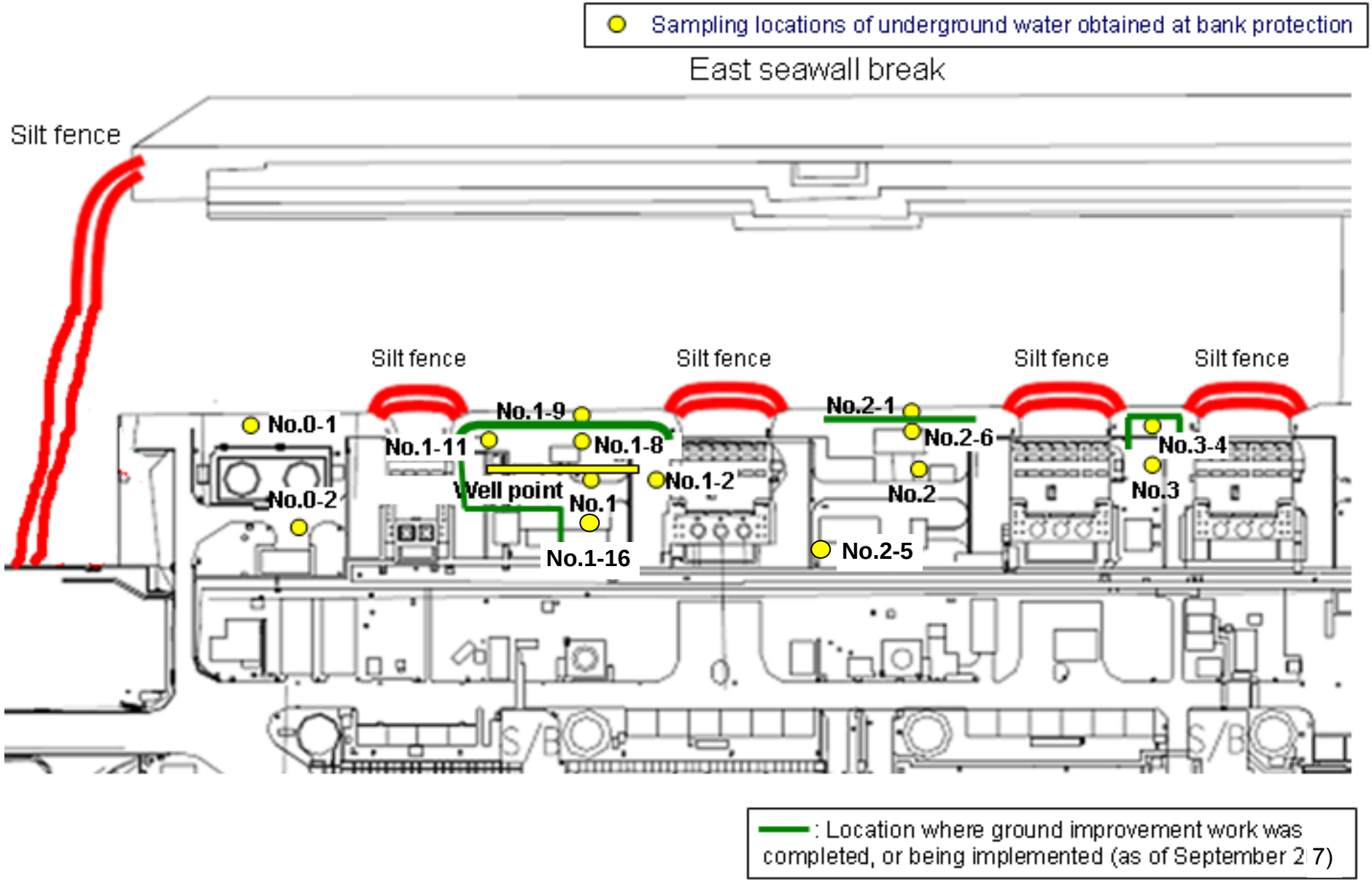
<Reference>
October 11, 2013
Tokyo Electric Power Company

# Detailed Analysis Results in the Port of Fukushima Daiichi NPS, around Discharge Channel and Bank Protection
## (Sampling Locations of Underground Water Obtained at Bank Protection)



# Detailed Analysis Results in the Port of Fukushima Daiichi NPS, around Discharge Channel and Bank Protection (1/6)
## Underground Water Obtained at Bank Protection

Unit: Bq/L (exclude chloride)

| | | Underground water observation hole No.0-1 | Underground water observation hole No.0-2 | Underground water observation hole No.1 | Underground water observation hole No.1-2 | Underground water observation hole No.1-8 | Underground water observation hole No.1-9 | Underground water observation hole No.1-11 | Underground water observation hole No.1-16 | Groundwater pumped up from the well point |
|---|---|---|---|---|---|---|---|---|---|---|
| Date of sampling | | Oct 6, 2013 | Oct 6, 2013 | Oct 7, 2013 | Oct 7, 2013 | Oct 7, 2013 | Oct 8, 2013 | Oct 7, 2013 | Oct 7, 2013 | Oct 7, 2013 |
| Time of sampling | | 9:45 AM | 11:20 AM | 10:35 AM | 12:06 PM | 9:36 AM | 6:30 AM | 10:02 AM | 11:02 AM | 9:35 AM |
| Chloride (unit: ppm) | | - | - | - | - | - | 480 | - | - | - |
| Cs-134 (Approx. 2 years) | | 2.3 | ND(0.34) | ND(0.56) | 1,400 | 23 | 6.7 | 0.55 | 1.4 | 20 |
| Cs-137 (Approx.30 years) | | 5.9 | 0.52 | ND(0.58) | 2,800 | 49 | 16 | 0.82 | 2.6 | 43 |
| The other γ | Mn-54 (Approx. 310 days) | ND | ND | ND | ND | 1.0 | ND | ND | ND | ND |
| | Co-60 (Approx. 5 years) | ND | ND | ND | ND | ND | ND | ND | 0.54 | ND |
| | Ru-106 (Approx. 370 days) | ND | ND | 4.4 | ND | ND | ND | ND | ND | ND |
| | Sb-125 (Approx. 3 years) | ND | ND | 1.2 | ND | ND | ND | ND | ND | ND |
| All β | | 160 | 28 | 430 | 250,000 | 100 | 89 | 31 | 700,000 | 610,000 |
| H-3 (Approx. 12 years) | | 16,000 | ND(110) | 270,000 | 54,000 | 2,100 | 630 | 36,000 | 36,000 | 200,000 |
| Sr-90 (Approx. 29 years) | | - | - | - | Under analysis | - | - | - | - | - |

| | | Underground water observation hole No.2 | Underground water observation hole No.2-1 | Underground water observation hole No.2-5 | Underground water observation hole No.2-6 | Underground water observation hole No.3 | Underground water observation hole No.3-4 |
|---|---|---|---|---|---|---|---|
| Date of sampling | | | | | | | |
| Time of sampling | | | | | | | |
| Cs-134 (Approx. 2 years) | | | | | | | |
| Cs-137 (Approx.30 years) | | | | | | | |
| The other γ | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| All β | | | | | | | |
| H-3 (Approx. 12 years) | | | | | | | |
| Sr-90 (Approx. 29 years) | | | | | | | |

* Data announced this time is provided in a thick-frame. The other data was announced on October 7, 8 and 9.
* "ND" indicates that the measurement result is below the detection limit, and the detection limit of each nuclide is provided in parentheses.
* "-" indicates that the measurement was out of range.

# Detailed Analysis Results in the Port of Fukushima Daiichi NPS, around Discharge Channel and Bank Protection (2/6)
## Underground Water Obtained at Bank Protection

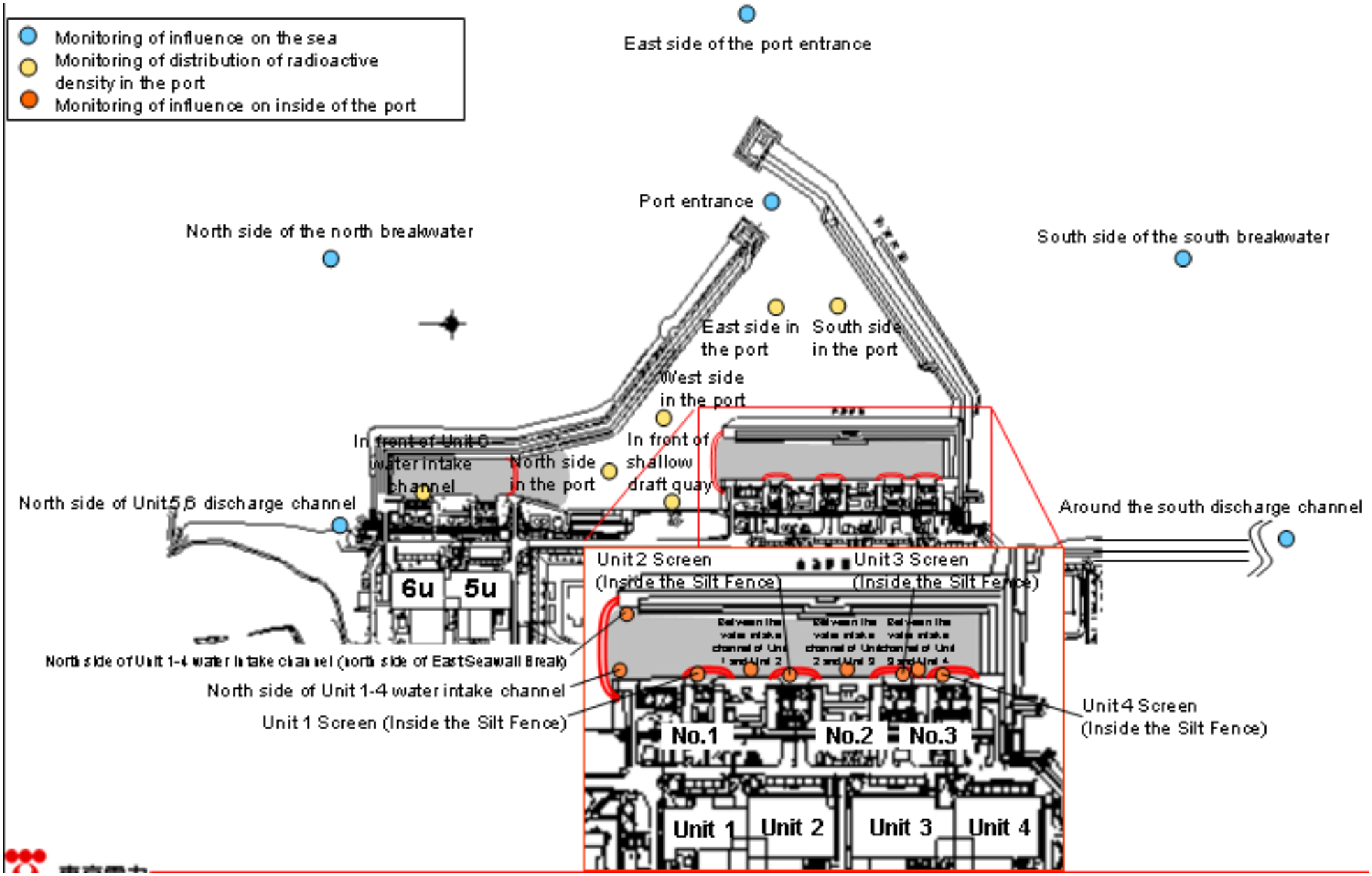
Unit: Bq/L (exclude chloride)

| | | Underground water observation hole No.0-1 | Underground water observation hole No.0-2 | Underground water observation hole No.1 | Underground water observation hole No.1-2 | Underground water observation hole No.1-8 | Underground water observation hole No.1-9 | Underground water observation hole No.1-11 | Underground water observation hole No.1-16 | Groundwater pumped up from the well point |
|---|---|---|---|---|---|---|---|---|---|---|
| Date of sampling | | | | Oct 10, 2013 | | | Oct 10, 2013 | Oct 10, 2013 | Oct 10, 2013 | |
| Time of sampling | | | | 10:00 AM | | | 6:25 AM | 9:34 AM | 10:24 AM | |
| Chloride (unit: ppm) | | | | - | | | 440 | - | - | |
| Cs-134 (Approx. 2 years) | | | | ND(0.51) | | | 9.2 | 0.67 | ND(1.0) | |
| Cs-137 (Approx.30 years) | | | | 1.4 | | | 21 | 2.0 | 3.4 | |
| The other γ | Ru-106 (Approx. 370 days) | | | 6.0 | | | ND | ND | ND | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| All β | | | | 310 | | | 71 | 46 | 740,000 | |
| H-3 (Approx. 12 years) | | | | Under analysis | | | Under analysis | Under analysis | Under analysis | |
| Sr-90 (Approx. 29 years) | | | | - | | | - | - | - | |

| | | Underground water observation hole No.2 | Underground water observation hole No.2-1 | Underground water observation hole No.2-5 | Underground water observation hole No.2-6 | Underground water observation hole No.3 | Underground water observation hole No.3-4 |
|---|---|---|---|---|---|---|---|
| Date of sampling | | | | | | | |
| Time of sampling | | | | | | | |
| Cs-134 (Approx. 2 years) | | | | | | | |
| Cs-137 (Approx.30 years) | | | | | | | |
| The other γ | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| All β | | | | | | | |
| H-3 (Approx. 12 years) | | | | | | | |
| Sr-90 (Approx. 29 years) | | | | | | | |

* "ND" indicates that the measurement result is below the detection limit, and the detection limit of each nuclide is provided in parentheses.
* "-" indicates that the measurement was out of range.

# Detailed Analysis Results in the Port of Fukushima Daiichi NPS, around Discharge Channel and Bank Protection
## (Sampling Locations of Seawater)



## Detailed Analysis Results in the Port of Fukushima Daiichi NPS, around Discharge Channel and Bank Protection (3/6)
## Seawater

Unit: Bq/L

| | 1F, North side of Unit 5,6 discharge channel | 1F, In front of Unit 6 water intake channel | 1F, In front of shallow draft quay | 1F, North side of Unit 1-4 water intake channel | 1F, North side of Unit 1-4 water intake channel (north side of East Seawall Break) | 1F, Unit 1 Screen (Inside the Silt Fence) | 1F, Between the water intake channel of Unit 1 and Unit 2 (surface layer) | 1F, Between the water intake channel of Unit 1 and Unit 2 (lower layer) | 1F, Unit 2 Screen (Inside the Silt Fence) | 1F, Between the water intake channel of Unit 2 and Unit 3 | 1F, Unit 3 Screen (Inside the Silt Fence) | Density Limit Specified by the Reactor Regulation * | WHO Guidelines for drinking-water quality |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date of Sampling | Oct 7, 2013 | Oct 7, 2013 | Oct 7, 2013 | Oct 8, 2013 | Oct 7, 2013 | Oct 7, 2013 | Oct 8, 2013 | Oct 8, 2013 | Oct 7, 2013 | Oct 7, 2013 | Oct 7, 2013 | | |
| Time of sampling | 5:55 AM | 6:00 AM | 5:43 AM | 6:20 AM | 6:15 AM | 5:52 AM | 6:26 AM | 6:26 AM | 5:56 AM | 6:00 AM | 6:03 AM | | |
| Cs-134(Approx. 2 years) | 1.3 | ND(3.3) | ND(2.1) | 32 | 14 | 30 | 30 | 17 | 27 | 22 | 30 | 60 | 10 |
| Cs-137(Approx.30 years) | 1.7 | ND(2.4) | 5.7 | 74 | 28 | 67 | 65 | 39 | 61 | 58 | 61 | 90 | 10 |
| All β | ND(17) | 22 | 29.13 | 690 | 230 | 590 | 530 | 250 | 420 | 480 | 190 | | |
| H-3 (Approx. 12 years) | 7.3 | 14 | ND(120) | 2,500 | 390 | 2000 | 1,600 | 450 | 1700 | 1200 | 290 | 60,000 | 10,000 |
| Sr-90 (Approx. 29 years) | - | - | - | - | - | - | - | - | - | - | - | 30 | 10 |

Unit: Bq/L

| | 1F, Between the water intake channel of Unit 3 and Unit 4 | 1F, Unit 4 Screen (Inside the Silt Fence) | 1F, Around the south discharge channel | 1F, Port entrance | 1F, East side in the port | 1F, West side in the port | 1F, North side in the port | 1F, South side in the port | North side of the north breakwater | East side of the port entrance | South side of the south breakwater | Density Limit Specified by the Reactor Regulation * | WHO Guidelines for drinking-water quality |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date of Sampling | Oct 7, 2013 | Oct 7, 2013 | Oct 7, 2013 | | | | | | | | | | |
| Time of sampling | 6:08 AM | 6:06 AM | 5:20 AM | | | | | | | | | | |
| Cs-134(Approx. 2 years) | 17 | 44 | ND(1.3) | | | | | | | | | 60 | 10 |
| Cs-137(Approx.30 years) | 36 | 98 | ND(1.4) | | | | | | | | | 90 | 10 |
| All β | 300 | 360 | ND(21) | | | | | | | | | | |
| H-3 (Approx. 12 years) | 620 | 400 | ND(1.8) | | | | | | | | | 60,000 | 10,000 |
| Sr-90 (Approx. 29 years) | - | - | - | | | | | | | | | 30 | 10 |

* Data announced this time is provided in a thick-frame. The other data was announced on October 8 and 9.

* "ND" indicates that the measurement result is below the detection limit, and the detection limit of each nuclide is provided in parentheses.

* "-" indicates that the measurement was out of range.

* Density Limit Specified by the Rule for the Installation, Operation, etc. of Commercial Nuclear Power Reactors (the density limit in the water outside the surrounding monitored areas is provided in section 6 of Appendix 2 [the amount is converted from Bq/cm$^3$ to Bq/L]).

Detailed Analysis Results in the Port of Fukushima Daiichi NPS, around Discharge Channel and Bank Protection (4/6)
Seawater

Unit: Bq/L

| | 1F, North side of Unit 5,6 discharge channel | 1F, In front of Unit 6 water intake channel | 1F, In front of shallow draft quay | 1F, North side of Unit 1-4 water intake channel | 1F, North side of Unit 1-4 water intake channel (north side of East Seawall Break) | 1F, Unit 1 Screen (Inside the Silt Fence) | 1F, Between the water intake channel of Unit 1 and Unit 2 (surface layer) | 1F, Between the water intake channel of Unit 1 and Unit 2 (lower layer) | 1F, Unit 2 Screen (Inside the Silt Fence) | 1F, Between the water intake channel of Unit 2 and Unit 3 | 1F, Unit 3 Screen (Inside the Silt Fence) | Density Limit Specified by the Reactor Regulation * | WHO Guidelines for drinking-water quality |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date of Sampling | | | | Oct 10, 2013 | | | Oct 10, 2013 | Oct 10, 2013 | | | | | |
| Time of sampling | | | | 6:10 AM | | | 6:18 AM | 6:18 AM | | | | | |
| Cs-134(Approx. 2 years) | | | | 89 | | | 87 | 93 | | | | 60 | 10 |
| Cs-137(Approx.30 years) | | | | 190 | | | 200 | 200 | | | | 90 | 10 |
| All β | | | | 740 | | | 600 | 400 | | | | | |
| H-3 (Approx. 12 years) | | | | Under analysis | | | Under analysis | Under analysis | | | | 60,000 | 10,000 |
| Sr-90 (Approx. 29 years) | | | | - | | | - | - | | | | 30 | 10 |

Unit: Bq/L

| | 1F, Between the water intake channel of Unit 3 and Unit 4 | 1F, Unit 4 Screen (Inside the Silt Fence) | 1F, Around the south discharge channel | 1F, Port entrance | 1F, East side in the port | 1F, West side in the port | 1F, North side in the port | 1F, South side in the port | North side of the north breakwater | East side of the port entrance | South side of the south breakwater | Density Limit Specified by the Reactor Regulation * | WHO Guidelines for drinking-water quality |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date of Sampling | | | | | | | | | | | | | |
| Time of sampling | | | | | | | | | | | | | |
| Cs-134(Approx. 2 years) | | | | | | | | | | | | 60 | 10 |
| Cs-137(Approx.30 years) | | | | | | | | | | | | 90 | 10 |
| All β | | | | | | | | | | | | | |
| H-3 (Approx. 12 years) | | | | | | | | | | | | 60,000 | 10,000 |
| Sr-90 (Approx. 29 years) | | | | | | | | | | | | 30 | 10 |

* "ND" indicates that the measurement result is below the detection limit, and the detection limit of each nuclide is provided in parentheses.

* "-" indicates that the measurement was out of range.

* Density Limit Specified by the Rule for the Installation, Operation, etc. of Commercial Nuclear Power Reactors (the density limit in the water outside the surrounding monitored areas is provided in section 6 of Appendix 2 [the amount is converted from Bq/cm$^3$ to Bq/L]).

Detailed Analysis Results in the Port of Fukushima Daiichi NPS, around Discharge Channel and Bank Protection (5/6)
Seawater

Unit: Bq/L

| | 1F, North side of Unit 5,6 discharge channel | 1F, In front of Unit 6 water intake channel | 1F, In front of shallow draft quay | 1F, North side of Unit 1-4 water intake channel | 1F, North side of Unit 1-4 water intake channel (north side of East Seawall Break) | 1F, Unit 1 Screen (Inside the Silt Fence) | 1F, Between the water intake channel of Unit 1 and Unit 2 (surface layer) | 1F, Between the water intake channel of Unit 1 and Unit 2 (lower layer) | 1F, Unit 2 Screen (Inside the Silt Fence) | 1F, Between the water intake channel of Unit 2 and Unit 3 | 1F, Unit 3 Screen (Inside the Silt Fence) | Density Limit Specified by the Reactor Regulation * | WHO Guidelines for drinking-water quality |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date of Sampling | | | Oct 9, 2013 | | Oct 9, 2013 | Oct 9, 2013 | | | Oct 9, 2013 | | Oct 9, 2013 | | |
| Time of sampling | | | 6:19 AM | | 6:43 AM | 6:26 AM | | | 6:29 AM | | 6:34 AM | | |
| Cs-134(Approx. 2 years) | | | ND(2.3) | | 27 | 51 | | | 370 | | 49 | 60 | 10 |
| Cs-137(Approx.30 years) | | | 8.5 | | 59 | 110 | | | 830 | | 110 | 90 | 10 |
| All β | | | 25 | | 250 | 690 | | | 1,700 | | 210 | | |
| H-3 (Approx. 12 years) | | | Under analysis | | Under analysis | Under analysis | | | Under analysis | | Under analysis | 60,000 | 10,000 |
| Sr-90 (Approx. 29 years) | | | - | | - | - | | | - | | - | 30 | 10 |

Unit: Bq/L

| | 1F, Between the water intake channel of Unit 3 and Unit 4 | 1F, Unit 4 Screen (Inside the Silt Fence) | 1F, Around the south discharge channel | 1F, Port entrance | 1F, East side in the port | 1F, West side in the port | 1F, North side in the port | 1F, South side in the port | North side of the north breakwater | East side of the port entrance | South side of the south breakwater | Density Limit Specified by the Reactor Regulation * | WHO Guidelines for drinking-water quality |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date of Sampling | | Oct 9, 2013 | | | | | | | | | | | |
| Time of sampling | | 6:37 AM | | | | | | | | | | | |
| Cs-134(Approx. 2 years) | | 36 | | | | | | | | | | 60 | 10 |
| Cs-137(Approx.30 years) | | 80 | | | | | | | | | | 90 | 10 |
| All β | | 140 | | | | | | | | | | | |
| H-3 (Approx. 12 years) | | Under analysis | | | | | | | | | | 60,000 | 10,000 |
| Sr-90 (Approx. 29 years) | | - | | | | | | | | | | 30 | 10 |

* Data announced this time is provided in a thick-frame. The other data was announced on October 10.

* "ND" indicates that the measurement result is below the detection limit, and the detection limit of each nuclide is provided in parentheses.

* "-" indicates that the measurement was out of range.

* Density Limit Specified by the Rule for the Installation, Operation, etc. of Commercial Nuclear Power Reactors (the density limit in the water outside the surrounding monitored areas is provided in section 6 of Appendix 2 [the amount is converted from Bq/cm$^3$ to Bq/L]).

# Detailed Analysis Results in the Port of Fukushima Daiichi NPS, around Discharge Channel and Bank Protection (6/6)
## Seawater

Unit: Bq/L

| | 1F, North side of Unit 5,6 discharge channel | 1F, In front of Unit 6 water intake channel | 1F, In front of shallow draft quay | 1F, North side of Unit 1-4 water intake channel | 1F, North side of Unit 1-4 water intake channel (north side of East Seawall Break) | 1F, Unit 1 Screen (Inside the Silt Fence) | 1F, Between the water intake channel of Unit 1 and Unit 2 (surface layer) | 1F, Between the water intake channel of Unit 1 and Unit 2 (lower layer) | 1F, Unit 2 Screen (Inside the Silt Fence) | 1F, Between the water intake channel of Unit 2 and Unit 3 | 1F, Unit 3 Screen (Inside the Silt Fence) | Density Limit Specified by the Reactor Regulation * | WHO Guidelines for drinking-water quality |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date of Sampling | | | Oct 10, 2013 | | Oct 10, 2013 | Oct 10, 2013 | | | Oct 10, 2013 | | Oct 10, 2013 | | |
| Time of sampling | | | 6:06 AM | | 6:45 AM | 6:15 AM | | | 6:31 AM | | 6:36 AM | | |
| Cs-134(Approx. 2 years) | | | 4.3 | | 27 | 73 | | | 300 | | 47 | 60 | 10 |
| Cs-137(Approx.30 years) | | | 6.7 | | 60 | 170 | | | 670 | | 110 | 90 | 10 |
| All β | | | 26 | | 150 | 710 | | | 1,300 | | 210 | | |
| H-3 (Approx. 12 years) | | | Under analysis | | Under analysis | Under analysis | | | Under analysis | | Under analysis | 60,000 | 10,000 |
| Sr-90 (Approx. 29 years) | | | - | | - | - | | | - | | - | 30 | 10 |

Unit: Bq/L

| | 1F, Between the water intake channel of Unit 3 and Unit 4 | 1F, Unit 4 Screen (Inside the Silt Fence) | 1F, Around the south discharge channel | 1F, Port entrance | 1F, East side in the port | 1F, West side in the port | 1F, North side in the port | 1F, South side in the port | North side of the north breakwater | East side of the port entrance | South side of the south breakwater | Density Limit Specified by the Reactor Regulation * | WHO Guidelines for drinking-water quality |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date of Sampling | | Oct 10, 2013 | | Oct 10, 2013 | | | | | | | | | |
| Time of sampling | | 6:39 AM | | 11:03 AM | | | | | | | | | |
| Cs-134(Approx. 2 years) | | 30 | | ND(1.1) | | | | | | | | 60 | 10 |
| Cs-137(Approx.30 years) | | 65 | | ND(0.90) | | | | | | | | 90 | 10 |
| All β | | 120 | | ND(15) | | | | | | | | | |
| H-3 (Approx. 12 years) | | Under analysis | | Under analysis | | | | | | | | 60,000 | 10,000 |
| Sr-90 (Approx. 29 years) | | - | | - | | | | | | | | 30 | 10 |

* Data announced this time is provided in a thick-frame. The other data was announced on October 10.

* We initially announced on October 10 that All β and H-3 obtained at "north side of the north breakwater", "east side of the port entrance" and "south side of the south breakwater" (sampled on October 10) were under analysis. However, the analysis will be performed for only γ nuclides.

* "ND" indicates that the measurement result is below the detection limit, and the detection limit of each nuclide is provided in parentheses.

* "-" indicates that the measurement was out of range.

* Density Limit Specified by the Rule for the Installation, Operation, etc. of Commercial Nuclear Power Reactors (the density limit in the water outside the surrounding monitored areas is provided in section 6 of Appendix 2 [the amount is converted from Bq/cm$^3$ to Bq/L]).

## <Reference> The Highest Dose Until the Previous Measurement (Groundwater Obtained at Bank Protection)

Unit: Bq/L

| | | Groundwater observation hole No.0-1 | Groundwater observation hole No.0-2 | Groundwater observation hole No.1 | Groundwater observation hole No.1-1 | Groundwater observation hole No.1-2 | Groundwater observation hole No.1-3 | Groundwater observation hole No.1-4 | Groundwater observation hole No.1-5 | Groundwater observation hole No.1-8 | Groundwater observation hole No.1-9 | Groundwater observation hole No.1-11 | Groundwater observation hole No.1-16 | Groundwater pumped up from the well point (notch tank) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cs-134 (Approx. 2 years) | | 3.0 〔9/29〕 | ND | 13 〔8/29〕 | 1.9 〔7/8〕 | 11,000 〔7/9〕 | 10 〔9/2〕 | 1.5 〔7/8〕 | 310 〔8/5〕 | 31 〔9/16〕 | 170 〔9/3〕 | 0.55 〔10/7〕 | 〔1/1〕 〔10/3〕 | 110 〔9/23〕 |
| Cs-137 (Approx.30 years) | | 5.9 〔10/6〕 | 0.93 〔9/15〕 | 31 〔8/29〕 | 3.6 〔7/8〕 | 22,000 〔7/9〕 | 24 〔9/2〕 | 3.6 〔7/8〕 | 650 〔8/5〕 | 67 〔9/16〕 | 380 〔9/3〕 | 1.4 〔10/3〕 | 〔1/2〕 〔10/3〕 | 250 〔9/23〕 |
| The other γ | Ru-106 (Approx. 370 days) | ND | ND | 26 〔5/24〕 | 7.9 〔7/8〕 | 160 〔8/15〕 | 17 〔7/22〕 〔8/8〕 | 3.1 〔8/8〕 | ND | ND | ND | ND | ND | 25 〔9/2〕 |
| | Mn-54 (Approx. 310 days) | ND | ND | ND | 1.0 〔7/5〕 | 62 〔7/5〕 | ND | ND | ND | 0.76 〔9/16〕 | ND | ND | ND | ND |
| | Co-60 (Approx. 5 years) | ND | ND | 0.50 〔7/19〕 | ND | 3.1 〔7/8〕 | ND | ND | ND | ND | ND | ND | 〔1/0〕 〔10/7〕 | ND |
| | Sb-125 (Approx. 3 years) | ND | ND | 1.7 〔7/11〕 | ND | 250 〔7/15〕 | 1.4 〔7/12〕 〔8/26〕 | ND | 12 〔8/8〕 | ND | ND | ND | ND | ND |
| All β | | 300 〔8/22〕 | 〔2/6〕 〔9/22〕 | 1,900 〔5/24〕 | 4,400 〔7/8〕 | 900,000 〔7/5〕 〔7/9〕 | 160,000 〔8/12〕 〔8/15〕 | 380 〔8/19〕 | 56,000 〔8/5〕 | 2,100 〔9/16〕 | 600 〔9/8〕 | 72 〔10/3〕 | 〔7/13〕 〔10/7〕 | 700,000 〔9/23〕 |
| H-3 (Approx. 12 years) | | 45,000 〔8/29〕 | ND | 500,000 〔5/24〕 〔6/7〕 | 630,000 〔7/8〕 | 57,000 〔10/3〕 | 290,000 〔7/12〕 | 98,000 〔7/11〕 | 72,000 〔8/15〕 | 2100 〔9/23〕 | 770 〔10/1〕 | 85000 〔9/13〕 | 43000 〔9/26〕 | 460,000 〔8/19〕 |
| Sr-90(Approx. 29 years) | | Under analysis | Under analysis | 1,200 〔6/7〕 | Under analysis | Under analysis | Under analysis | Under analysis | Under analysis | Under analysis | Under analysis | Under analysis | Under analysis | - |

Unit: Bq/L

| | | Groundwater observation hole No.2 | Groundwater observation hole No.2-1 | Groundwater observation hole No.2-5*1 | Groundwater observation hole No.2-6 | Groundwater observation hole No.3 | Groundwater observation hole No.3-1 | Groundwater observation hole No.3-4 |
|---|---|---|---|---|---|---|---|---|
| Cs-134 (Approx. 2 years) | | 0.50 〔7/9〕 | 0.66 〔9/1〕 | 3.7 〔9/29〕 | 0.42 〔9/22〕 | 3.5 〔7/25〕 | 1.2 〔7/25〕 〔8/8〕 | 1.0 〔9/25〕 |
| Cs-137 (Approx.30 years) | | 1.2 〔7/11〕 〔8/1〕 | 1.1 〔8/29〕 〔9/1〕 | 10 〔9/29〕 | 0.6 〔9/22〕 〔9/29〕 | 5.9 〔8/8〕 | 2.6 〔8/1〕 | 1.9 〔10/9〕 |
| The other γ | Ru-106 (Approx. 370 days) | ND | ND | ND | ND | ND | ND | ND |
| | Mn-54 (Approx. 310 days) | ND | ND | 0.77 〔9/29〕 | ND | ND | ND | ND |
| | Co-60 (Approx. 5 years) | ND | ND | ND | ND | ND | ND | ND |
| | Sb-125 (Approx. 3 years) | ND | ND | 26 〔9/29〕 | ND | 1.1 〔9/5〕 | ND | ND |
| All β | | 1,700 〔7/8〕 | 380 〔7/29〕 | 46000 〔9/29〕 | 37 〔10/9〕 | 1,400 〔7/11〕 | 180 〔8/1〕 | ND |
| H-3 (Approx. 12 years) | | 850 〔6/26〕 | 440 〔8/26〕 | 1500 〔9/29〕 | 910 〔10/6〕 | 3,200 〔2012/12/12〕 | 460 〔8/1〕 | 170 〔9/18〕 |
| Sr-90(Approx. 29 years) | | 54 〔5/31〕 | Under analysis | Under analysis | Under analysis | 8.3 〔2012/12/12〕 | Under analysis | Under analysis |

*1 Although we previously announced the analysis result of γ and all β on September 29, we have reanalyze the sample.
The analysis result of No.2-5 is the reference value, since we could not sample groundwater by a regular procedure.

* "ND" indicates that the measurement result is below the detection limit.

* Date of sampling is provided in parentheses.

## <Reference> The Highest Dose Until the Previous Measurement* (Seawater)

Unit: Bq/L

| | 1F, North side of Unit 5,6 discharge channel | | 1F, In front of Unit 6 water intake channel | | 1F, In front of shallow draft quay | | 1F, North side of Unit 1-4 water intake channel | | 1F, North side of Unit 1-4 water intake channel (north side of East Seawall Break) | | 1F, Unit 1 Screen (Inside the Silt Fence) | | 1F, Between the water intake channel of Unit 1 and Unit 2 (surface layer) | | 1F, Between the water intake channel of Unit 1 and Unit 2 (lower layer) | | 1F, Unit 2 Screen (Inside the Silt Fence) | | 1F, Between the water intake channel of Unit 2 and Unit 3 (surface layer) | | 1F, Between the water intake channel of Unit 2 and Unit 3 (lower layer) | | 1F, Unit 3 Screen (Inside the Silt Fence) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cs-134(Approx. 2 years) | 1.8 | (6/21) | 2.4 | (8/19) | 5.3 | (8/5) | 54 | (9/10) | 16 | (8/12) | 31 | (9/9) (9/23) | 39 | (9/10) | 22 | (9/29) | 27 | (10/7) | 22 | (10/7) | 3.5 | (8/20) | 350 | (7/15) |
| Cs-137(Approx.30 years) | 3.3 | (6/26) | 4.7 | (8/19) | 8.6 | (8/5) | 110 | (9/10) | 33 | (8/12) | 68 | (9/9) | 80 | (9/10) | 52 | (9/29) | 61 | (10/7) | 58 | (10/7) | 9.8 | (8/20) | 770 | (7/15) |
| All β | ND | | 46 | (8/19) | 40 | (7/3) | 1,100 | (8/15) | 320 | (8/12) | 700 | (8/12) | 740 | (8/15) | 450 | (7/16) | 520 | (9/9) | 480 | (10/7) | 85 | (8/20) | 1,000 | (7/15) |
| H-3 (Approx. 12 years) | 8.6 | (6/26) | 24 | (8/19) | 340 | (6/26) | 4,700 | (8/15) | 460 | (7/15) | 2,500 | (8/12) | 2,600 | (8/15) | 1,600 | (9/1) | 1,500 | (9/9) (9/30) | 790 | (9/9) | - | | 410 | (9/2) |
| Sr-90 (Approx. 29 years) | 5.8 | (6/26) | - | | 7.4 | (6/26) | Under analysis | | Under analysis | | Under analysis | | Under analysis | | Under analysis | | Under analysis | | Under analysis | | - | | Under analysis | |

Unit: Bq/L

| | 1F, Between the water intake channel of Unit 3 and Unit 4 (surface layer) | | 1F, Between the water intake channel of Unit 3 and Unit 4 (lower layer) | | 1F, Unit 4 Screen (Inside the Silt Fence) | | 1F, Around the south discharge channel | | 1F, Port entrance | | 1F, East side in the port | | 1F, West side in the port | | 1F, North side in the port | | 1F, South side in the port | | North side of the north breakwater | | East side of the port entrance | | South side of the south breakwater | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cs-134(Approx. 2 years) | 22 | (8/12) | 4.8 | (8/20) | 62 | (9/16) | ND | | 1.6 | (8/19) | 2.9 | (8/19) | 2.6 | (8/19) | 2.3 | (10/3) | 2.1 | (8/19) | ND | | ND | | ND | |
| Cs-137(Approx.30 years) | 45 | (8/12) | 7.7 | (8/20) | 140 | (9/16) | 3.0 | (7/15) | 4.7 | (8/19) | 6.6 | (8/19) | 6.5 | (8/19) | 4.7 | (8/19) | 4.6 | (8/19) | ND | | 1.4 | (10/8) | ND | |
| All β | 390 | (8/12) | 57 | (8/20) | 360 | (10/7) | ND | | 69 | (8/19) | 74 | (8/19) | 60 | (7/4) | 69 | (8/19) | 79 | (8/19) | ND | | ND | | ND | |
| H-3 (Approx. 12 years) | 650 | (8/12) | - | | 400 | (8/12) | ND | | 68 | (8/19) | 67 | (8/19) | 59 | (8/19) | 52 | (8/19) | 60 | (8/19) | 4.7 | (8/14) | 3.6 | (9/18) | ND | |
| Sr-90 (Approx. 29 years) | Under analysis | | - | | Under analysis | | 0.36 | (6/26) | 3.5 | (6/20) | Under analysis | | Under analysis | | - | | - | | - | | - | | - | |

* The highest result announced in "Detailed Analysis Results in the Port of Fukushima Daiichi NPS, around Discharge Channel and Bank Protection" or the other handouts is provided.
As for "1F, North side of Unit 1-4 water intake channel", the data is obtained since January 14, 2013. For the other locations, the data is obtained since June 14.

* "ND" indicates that the measurement result is below the detection limit.

* Date of sampling is provided in parentheses.

* "-" indicates that the measurement was out of range.

**[Reference] Standard values**

Unit: Bq/L

| | Cs-134 | Cs-137 | H-3 | Sr-90 |
|---|---|---|---|---|
| Density Limit Specified by the Rule for the Installation Operation, etc. of Commercial Nuclear Power Reactors (the density limit in the water outside the surrounding monitored areas is provided in section 6 of Appendix 2) | 60 | 90 | 60,000 | 30 |
| WHO Guidelines for drinking-water quality | 10 | 10 | 10,000 | 10 |