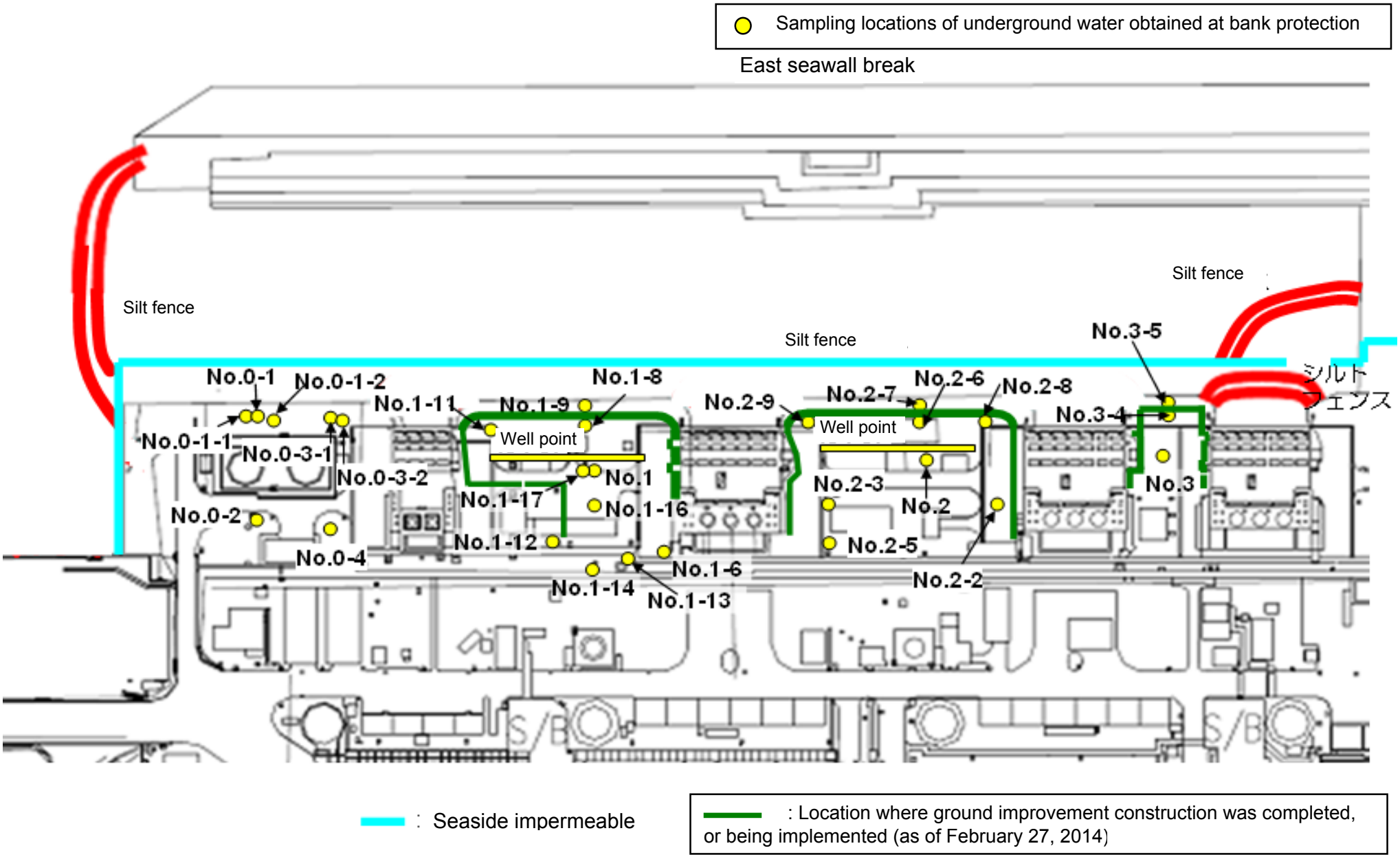
<Reference>
March 28, 2014
Tokyo Electric Power Company

# 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 (1/4)
## Underground Water Obtained at Bank Protection

Unit: Bq/L (exclude chloride)

| | | Underground water observation hole No.0-1 | Underground water observation hole No.0-1-2 | Underground water observation hole No.0-2 | Underground water observation hole No.0-3-1 | Underground water observation hole No.0-3-2 | Underground water observation hole No.0-4 | Underground water observation hole No.1 | Underground water observation hole No.1-6 | 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.1-12 | Underground water observation hole No.1-14 | Underground water observation hole No.1-16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date of sampling | | Mar 23, 2014 | 41,721 | Mar 23, 2014 | Mar 23, 2014 | Mar 24, 2014 | Mar 23, 2014 | Mar 24, 2014 | Mar 24, 2014 | Mar 24, 2014 | Mar 25, 2014 | Mar 24, 2014 | Mar 24, 2014 | Mar 24, 2014 | Mar 24, 2014 |
| Time of sampling | | 11:10 AM | 10:27 AM | 9:46 AM | 10:07 AM | 9:30 AM | 9:11 AM | 10:18 AM | 10:27 AM | 10:37 AM | 7:00 AM | 9:57 AM | 10:42 AM | 9:38 AM | 11:04 AM |
| Chloride (unit: ppm) | | - | - | - | - | - | - | - | - | - | 260 | - | - | - | - |
| Cs-134 (Approx. 2 years) | | 8.2 | ND(0.45) | ND(0.44) | ND(0.37) | ND(0.42) | ND(0.50) | ND(0.44) | 5600.00 | 20 | 2.5 | 0.77 | 2.5 | 3.6 | ND(1.4) |
| Cs-137 (Approx.30 years) | | 22 | ND(0.57) | ND(0.62) | 0.56 | 1.0 | ND(0.58) | 1.1 | 14000.00 | 53 | 6.1 | 2.0 | 6.6 | 10 | ND(1.1) |
| The other γ | Mn-54 (Approx. 310 days) | ND | ND | ND | ND | 0.37 | ND | ND | 180 | 3.5 | ND | ND | ND | ND | ND |
| | Co-60 (Approx. 5 years) | ND | ND | ND | ND | ND | ND | ND | 570 | ND | ND | ND | ND | ND | ND |
| | Ru-106 (Approx. 370 days) | ND | ND | ND | ND | ND | ND | 3.1 | ND | ND | ND | ND | ND | ND | ND |
| | Sb-125 (Approx. 3 years) | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 7.8 |
| Gross β | | 150 | ND(17) | ND(17) | ND(17) | ND(19) | ND(17) | 240 | 660,000 | 24,000 | 110 | 28 | 80 | 860 | 1,300,000 |
| H-3 (Approx. 12 years) | | 17,000 | 17,000 | 3,900 | ND(100) | 61,000 | 1,700 | 180,000 | 14,000 | 8,200 | 210 | 13,000 | 34,000 | 12,000 | 13,000 |
| Sr-90 (Approx. 29 years) | | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

| | | Underground water observation hole No.1-17 | Groundwater pumped up from the well point (between Unit 1 and 2) | Underground water observation hole No.2 | Underground water observation hole No.2-2 | Underground water observation hole No.2-3 | Underground water observation hole No.2-5 | Underground water observation hole No.2-6 | Underground water observation hole No.2-7 | Underground water observation hole No.2-8 | Groundwater pumped up from the well point (between Unit 2 and 3) | Underground water observation hole No.3 | Underground water observation hole No.3-4 | Underground water observation hole No.3-5 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date of sampling | | Mar 24, 2014 | Mar 24, 2014 | | | | | Mar 25, 2014 | | | | | | |
| Time of sampling | | 9:42 AM | 10:00 AM | | | | | 9:47 AM | | | | | | |
| Chloride (unit: ppm) | | - | - | | | | | - | | | | | | |
| Cs-134 (Approx. 2 years) | | ND(0.55) | 1.7 | | | | | ND(0.43) | | | | | | |
| Cs-137 (Approx.30 years) | | 1.4 | 3.3 | | | | | ND(0.54) | | | | | | |
| The other γ | Mn-54 (Approx. 310 days) | ND | 3.9 | | | | | ND | | | | | | |
| | Co-60 (Approx. 5 years) | ND | ND | | | | | ND | | | | | | |
| | Ru-106 (Approx. 370 days) | ND | ND | | | | | ND | | | | | | |
| | Sb-125 (Approx. 3 years) | ND | ND | | | | | ND | | | | | | |
| Gross β | | 3,500 | 250,000 | | | | | 1,900 | | | | | | |
| H-3 (Approx. 12 years) | | 6,000 | 92,000 | | | | | 970 | | | | | | |
| Sr-90 (Approx. 29 years) | | - | - | | | | | - | | | | | | |

* Data announced this time is provided in a thick-frame. The other data was announced on March 24, 25 and 26.
* "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 (2/4)
## Underground Water Obtained at Bank Protection

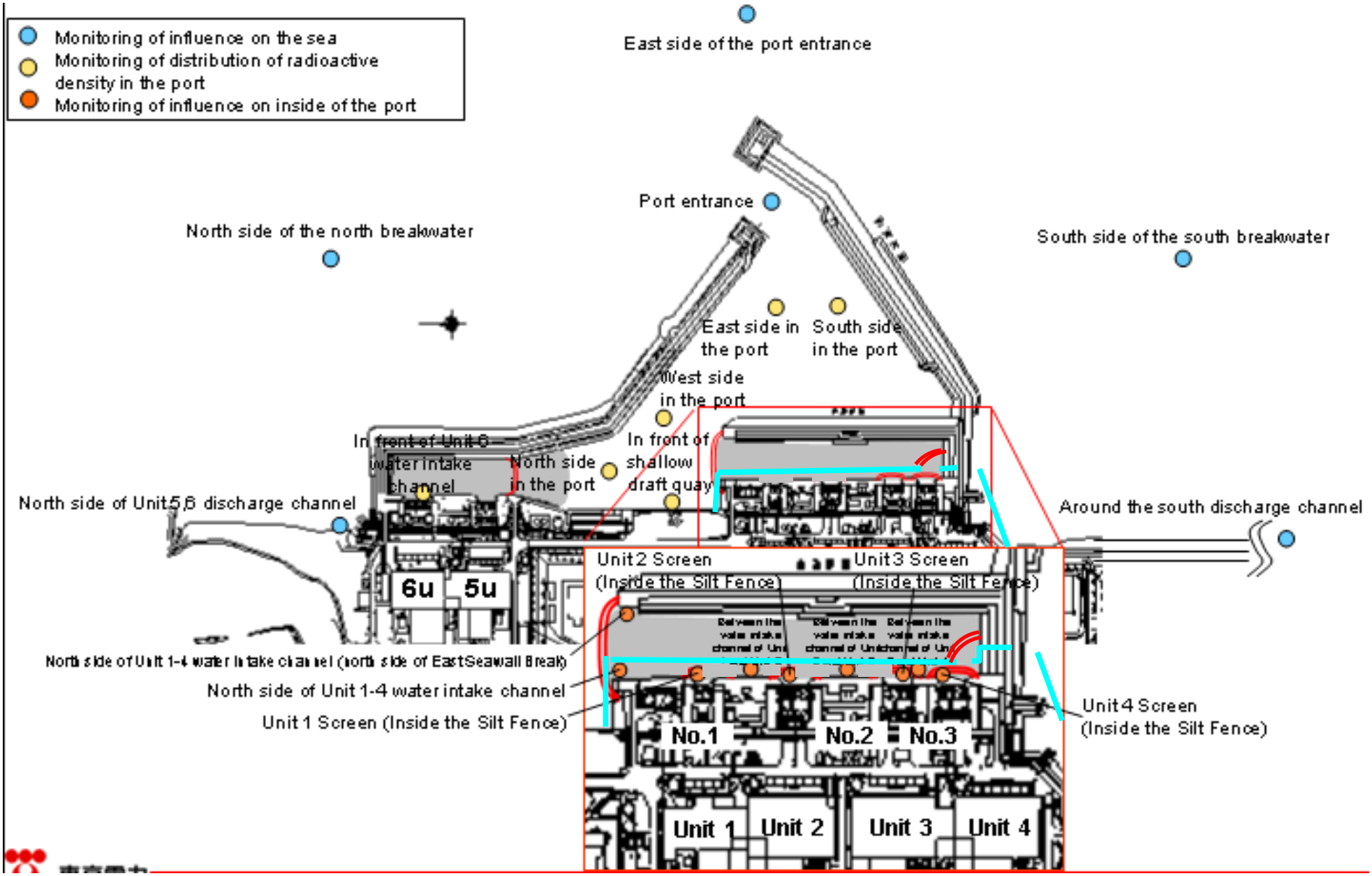
Unit: Bq/L (exclude chloride)

| | | Underground water observation hole No.0-1 | Underground water observation hole No.0-1-2 | Underground water observation hole No.0-2 | Underground water observation hole No.0-3-1 | Underground water observation hole No.0-3-2 | Underground water observation hole No.0-4 | Underground water observation hole No.1 | Underground water observation hole No.1-6 | 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.1-12 | Underground water observation hole No.1-14 | Underground water observation hole No.1-16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date of sampling | | | | | | Mar 27, 2014 | | Mar 27, 2014 | Mar 27, 2014 | | Mar 27, 2014 | Mar 27, 2014 | Mar 27, 2014 | Mar 27, 2014 | Mar 27, 2014 |
| Time of sampling | | | | | | 9:30 AM | | 10:15 AM | 10:30 AM | | 7:40 AM | 9:57 AM | 9:20 AM | 9:32 AM | 10:55 AM |
| Chloride (unit: ppm) | | | | | | - | | - | - | | 250 | - | - | - | - |
| Cs-134 (Approx. 2 years) | | | | | | ND(0.46) | | ND(0.43) | 5,900[*1] | | 7.0 | 0.45 | 4.1 | 4.0 | ND(2.4) |
| Cs-137 (Approx.30 years) | | | | | | ND(0.53) | | 0.62 | 15,000[*1] | | 18 | 1.6 | 11 | 9.2 | ND(1.2) |
| The other γ | Mn-54 (Approx. 310 days) | | | | | ND | | ND | 180 | | ND | ND | ND | ND | ND |
| | Co-60 (Approx. 5 years) | | | | | ND | | ND | 640 | | ND | ND | ND | ND | ND |
| | Ru-106 (Approx. 370 days) | | | | | ND | | 4.7 | ND | | ND | ND | ND | ND | ND |
| | Sb-125 (Approx. 3 years) | | | | | ND | | ND | ND | | ND | ND | ND | ND | 7.5 |
| Gross β | | | | | | ND(21) | | 230 | 770,000[*1] | | 54 | 37 | 130 | 960 | 1,200,000 |
| H-3 (Approx. 12 years) | | | | | | Under analysis | | Under analysis | Under analysis | | Under analysis | Under analysis | Under analysis | Under analysis | Under analysis |
| Sr-90 (Approx. 29 years) | | | | | | - | | - | - | | - | - | - | - | - |

| | | Underground water observation hole No.1-17 | Groundwater pumped up from the well point (between Unit 1 and 2) | Underground water observation hole No.2 | Underground water observation hole No.2-2 | Underground water observation hole No.2-3 | Underground water observation hole No.2-5 | Underground water observation hole No.2-6 | Underground water observation hole No.2-7 | Underground water observation hole No.2-8 | Groundwater pumped up from the well point (between Unit 2 and 3) | Underground water observation hole No.3 | Underground water observation hole No.3-4 | Underground water observation hole No.3-5 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date of sampling | | Mar 27, 2014 | | | | | | Mar 27, 2014 | | | | | | |
| Time of sampling | | 9:35 AM | | | | | | 10:41 AM | | | | | | |
| Chloride (unit: ppm) | | - | | | | | | - | | | | | | |
| Cs-134 (Approx. 2 years) | | ND(0.55) | | | | | | ND(0.42) | | | | | | |
| Cs-137 (Approx.30 years) | | 0.56 | | | | | | ND(0.54) | | | | | | |
| The other γ | Mn-54 (Approx. 310 days) | ND | | | | | | ND | | | | | | |
| | Co-60 (Approx. 5 years) | ND | | | | | | ND | | | | | | |
| | Ru-106 (Approx. 370 days) | ND | | | | | | ND | | | | | | |
| | Sb-125 (Approx. 3 years) | ND | | | | | | ND | | | | | | |
| Gross β | | 3,400 | | | | | | 2,000 | | | | | | |
| H-3 (Approx. 12 years) | | Under analysis | | | | | | Under analysis | | | | | | |
| 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.
*1 The highest measurement value (compared to the previous values provided in the handouts published in 'Detailed Analysis Results in the Port of Fukushima Daiichi NPS, around Discharge Channel and Bank Protection')

# 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 (3/4)
## 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) | 1F, Between the water intake channel of Unit 3 and Unit 4 | 1F, Unit 4 Screen (Inside the Silt Fence) | Density Limit Specified by the Reactor Regulation * | WHO Guidelines for drinking-water quality |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date of Sampling | Mar 24, 2014 | Mar 24, 2014 | Mar 24, 2014 | | Mar 24, 2014 | Mar 24, 2014 | Mar 25, 2014 | Mar 25, 2014 | Mar 24, 2014 | Mar 24, 2014 | Mar 24, 2014 | Mar 24, 2014 | Mar 24, 2014 | | |
| Time of sampling | 6:25 AM | 6:22 AM | 6:21 AM | | 6:52 AM | 6:27 AM | 6:58 AM | 6:58 AM | 6:31 AM | 6:34 AM | 6:37 AM | 6:41 AM | 6:39 AM | | |
| Cs-134(Approx. 2 years) | ND(0.74) | **ND**(2.0) | **ND**(1.8) | | 8.7 | 10 | 9.4 | 3.4 | 13 | 12 | 12 | 11 | 7.3 | 60 | 10 |
| Cs-137(Approx.30 years) | ND(0.72) | ND(2.3) | 3.3 | | 19 | 30 | 33 | 10 | 34 | 30 | 28 | 29 | 22 | 90 | 10 |
| Gross β | 11 | 21 | ND(17) | | 88 | 250 | 330 | 67 | 240 | 210 | 170 | 170 | 120 | | |
| H-3 (Approx. 12 years) | ND(1.7) | ND(3.4) | 3.3 | | 170 | 820 | 1,000 | ND(110) | 620 | 560 | 470 | 460 | 240 | 60,000 | 10,000 |
| Sr-90 (Approx. 29 years) | - | - | - | | - | - | - | - | - | - | - | - | - | 30 | 10 |

Unit: Bq/L

| | 1F, South side of Unit 1-4 water intake channel (In front of impermeable wall) | 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 | Northeast side of the port entrance | East side of the port entrance | Southeast 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 | Mar 24, 2014 | Mar 24, 2014 | | | | | | | | | | | | | |
| Time of sampling | 6:42 AM | 5:40 AM | | | | | | | | | | | | | |
| Cs-134(Approx. 2 years) | 9.6 | ND(0.66) | | | | | | | | | | | | 60 | 10 |
| Cs-137(Approx.30 years) | 22 | ND(0.60) | | | | | | | | | | | | 90 | 10 |
| Gross β | 130 | 10 | | | | | | | | | | | | | |
| H-3 (Approx. 12 years) | 270 | ND(1.7) | | | | | | | | | | | | 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 March 25 and 26.

* "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 (4/4)
## 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 (north side of East Seawall Break) | 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 | 1F, Between the water intake channel of Unit 2 and Unit 3 | 1F, Unit 3 Screen | 1F, Between the water intake channel of Unit 3 and Unit 4 | 1F, Unit 4 Screen (Inside the Silt Fence) | 1F, South side of Unit 1-4 water intake channel (In front of impermeable wall) | Density Limit Specified by the Reactor Regulation * | WHO Guidelines for drinking-water quality |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date of Sampling | | | | | Mar 27, 2014 | Mar 27, 2014 | | | | | | | | |
| Time of sampling | | | | | 7:36 AM | 7:36 AM | | | | | | | | |
| Cs-134(Approx. 2 years) | | | | | 8.2 | 6.5 | | | | | | | 60 | 10 |
| Cs-137(Approx.30 years) | | | | | 26 | 17 | | | | | | | 90 | 10 |
| Gross β | | | | | 260 | 75 | | | | | | | | |
| H-3 (Approx. 12 years) | | | | | Under analysis | Under analysis | | | | | | | 60,000 | 10,000 |
| Sr-90 (Approx. 29 years) | | | | | - | - | | | | | | | 30 | 10 |

Unit: Bq/L

| | 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 | Northeast side of the port entrance | East side of the port entrance | Southeast 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 | | | | | | | Mar 24, 2014 | Mar 24, 2014 | Mar 24, 2014 | Mar 24, 2014 | Mar 24, 2014 | | | |
| Time of sampling | | | | | | | 10:01 AM | 10:07 AM | 10:13 AM | 10:19 AM | 10:26 AM | | | |
| Cs-134(Approx. 2 years) | | | | | | | ND(0.68) | ND(0.84) | ND(0.76) | ND(0.73) | ND(0.66) | | 60 | 10 |
| Cs-137(Approx.30 years) | | | | | | | ND(0.71) | ND(0.71) | ND(0.59) | ND(0.72) | ND(0.58) | | 90 | 10 |
| Gross β | | | | | | | ND(15) | ND(15) | ND(15) | ND(15) | ND(15) | | | |
| 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 |

* "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$^3$

## <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.0-1-1 | Groundwater observation hole No.0-1-2 | Groundwater observation hole No.0-2 | Groundwater observation hole No.0-3-1 | Groundwater observation hole No.0-3-2 | Groundwater observation hole No.0-4 | 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* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cs-134 (Approx. 2 years) | | 9.8 *2 <3/9> | 0.61 <3/2> | ND | 0.61 〔10/13〕 | 0.44 〔11/24〕 | 0.82 <1/14> | ND | 13 〔8/29〕 | 1.9 〔7/8〕 | 11,000 〔7/9〕 | 10 〔9/2〕 | 1.5 〔7/8〕 | 310 〔8/5〕 |
| Cs-137 (Approx.30 years) | | 25 *2 <3/9> | 1.5 <3/2> | 0.51 〔11/17〕 | 2.2 <1/12> | 0.86 〔11/20〕 | 2.1 <1/14> | 1.4 <1/12> | 31 〔8/29〕 | 3.6 〔7/8〕 | 22,000 〔7/9〕 | 24 〔9/2〕 | 3.6 〔7/8〕 | 650 〔8/5〕 |
| The other γ | Ru-106 (Approx. 370 days) | ND | ND | ND | ND | ND | ND | ND | 26 〔5/24〕 | 7.9 〔7/8〕 | 160 〔8/15〕 | 17 〔7/22〕 〔8/8〕 | 3.1 〔8/8〕 | ND |
| | Mn-54 (Approx. 310 days) | ND | ND | ND | ND | ND | 0.64 <2/20> | ND | ND | 1.0 〔7/5〕 | 62 〔7/5〕 | ND | ND | ND |
| | Co-60 (Approx. 5 years) | ND | ND | ND | ND | ND | ND | ND | 0.50 〔7/19〕 | ND | 3.1 〔7/8〕 | ND | ND | ND |
| | Sb-125 (Approx. 3 years) | ND | ND | ND | ND | ND | ND | ND | 1.7 〔7/11〕 | ND | 250 〔7/15〕 | 1.4 〔7/12〕 〔8/26〕 | ND | 12 〔8/8〕 |
| Gross β | | 300 〔8/22〕 | 21 〔12/7〕 | 21 〔11/10〕 | 87 〔10/13〕 | ND | 67*1 〔12/11〕 | 29 〔12/29〕 | 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〕 |
| H-3 (Approx. 12 years) | | 45,000 〔8/29〕 | 18,000 〔12/7〕 | 74,000 〔12/15〕 <1/19> | 6,800 <2/16> | ND | 76,000 <2/6> | 56,000 <2/23> | 500,000 〔5/24〕 〔6/7〕 | 630,000 〔7/8〕 | 430,000 〔9/16〕 | 290,000 〔7/12〕 | 98,000 〔7/11〕 | 72,000 〔8/15〕 |
| Sr-90(Approx. 29 years) | | 140 〔8/8〕 | Under analysis | Under analysis | 0.73 〔9/2〕 | Under analysis | Under analysis | Under analysis | 1,300 〔8/22〕 | 2,300 〔6/28〕 | 5,000,000 〔7/5〕 | 130,000 〔8/8〕 | 200 〔7/8〕 | 5,100 〔8/22〕 |

Unit: Bq/L

| | | Groundwater observation hole No.1-6 | Groundwater observation hole No.1-8 | Groundwater observation hole No.1-9 | Groundwater observation hole No.1-10 | Groundwater observation hole No.1-11 | Groundwater observation hole No.1-12 | Groundwater observation hole No.1-13 | Groundwater observation hole No.1-14 | Groundwater observation hole No.1-16 | Groundwater observation hole No.1-17 | Groundwater pumped up from the well point (between Unit 1 and 2) | Groundwater observation hole No.2 | Groundwater observation hole No.2-1* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cs-134 (Approx. 2 years) | | 5,600 <3/24> | 47 〔11/25〕 | 170 〔9/3〕 | - | 1.1 <1/13> | 74 〔10/21〕 | 37,000 <2/13> | 88 *2 <2/27> | 3.1 *1 〔12/13〕 | 1.2 〔12/5〕 | 110 〔9/23〕 | 0.88 <2/26> | 0.66 〔9/1〕 |
| Cs-137 (Approx.30 years) | | 14,000 <3/24> | 110 〔11/25〕 | 380 〔9/3〕 | - | 2.8 <1/13> | 170 〔10/21〕 | 93,000 <2/13> | 230 *2 <2/27> | 4.7 <2/17> | 1.5 <3/10> | 250 〔9/23〕 | 2.5 <2/26> | 1.1 〔8/29〕 〔9/1〕 |
| The other γ | Ru-106 (Approx. 370 days) | ND | ND | ND | - | ND | 5.4 〔10/28〕 | ND | ND | 9.2 〔10/28〕 | 4.1 〔12/12〕 | 25 〔9/2〕 | ND | ND |
| | Mn-54 (Approx. 310 days) | 320 <2/13> <2/17> | 12 <2/3> | ND | - | ND | ND | ND | ND | ND | ND | 5.9 <3/3> | ND | ND |
| | Co-60 (Approx. 5 years) | 830 <2/20> | 1.3 <2/3> | ND | - | ND | 0.51 〔10/24〕 | ND | ND | 0.9 〔11/7〕 | 0.61 〔11/25〕 | ND | ND | ND |
| | Sb-125 (Approx. 3 years) | ND | ND | ND | - | ND | 61 〔10/21〕 | ND | ND | 11 〔12/5〕 | 2.1 〔11/25〕 | ND | ND | ND |
| Gross β | | 760,000 <2/17> | 59,000 <2/3> | 2,100 *2 〔11/17〕 | 78 *2 <1/27> | 2,300 〔12/26〕 | 730 〔10/21〕 | 260,000 <2/12> <2/13> | 1,100 <3/20> | 3,100,000 <1/20> <1/30> <2/3> | 3,500 <3/24> | 700,000 〔9/23〕 | 1,700 〔7/8〕 | 380 〔7/29〕 |
| H-3 (Approx. 12 years) | | 110,000 *2 <2/6> | 12,000 <1/6> <2/3> | 860 *2 〔11/14〕 | 270,000 *2 <1/27> | 85,000 〔9/13〕 | 440,000 〔10/31〕 | 88,000 <2/12> | 23,000 <2/13> | 43,000 〔9/26〕 | 32,000 <1/20> | 460,000 〔8/19〕 | 1,000 <2/23> | 440 〔8/26〕 |
| Sr-90(Approx. 29 years) | | - | 1,300 〔9/16〕 | 170 〔9/3〕 | - | 17 〔9/13〕 | Under analysis | Under analysis | Under analysis | Under analysis | Under analysis | - | 54 〔5/31〕 | 5.9 〔7/25〕 |

Unit: Bq/L

| | | Groundwater observation hole No.2-2 | Groundwater observation hole No.2-3 | Groundwater observation hole No.2-5 | Groundwater observation hole No.2-6 | Groundwater observation hole No.2-7 | Groundwater observation hole No.2-8 | Groundwater observation hole No.2-9 | Groundwater pumped up from the well point (between Unit 2 and 3) | Groundwater observation hole No.3 | Groundwater observation hole No.3-1* | Groundwater observation hole No.3-4 | Groundwater observation hole No.3-5 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cs-134 (Approx. 2 years) | | 15 <2/12> | 2.2 <2/26> | 25 <2/12> | 17 <3/11> | 3.5 <2/23> | - | - | 1.2 <3/9> | 3.5 〔7/25〕 | 1.2 〔7/25〕 〔8/8〕 | 1.9 <1/8> | 64 <1/15> |
| Cs-137 (Approx.30 years) | | 38 <2/12> | 5.5 <2/26> | 62 <2/12> | 50 <3/11> | 9.0 <2/23> | - | 0.58 *2 <2/11> | 3.1 <3/9> | 5.9 〔8/8〕 | 2.6 〔8/1〕 | 5.2 <3/13> | 170 <1/15> |
| The other γ | Ru-106 (Approx. 370 days) | ND | ND | ND | ND | ND | - | 6.5 *2 <2/11> | ND | ND | ND | ND | - |
| | Mn-54 (Approx. 310 days) | ND | 0.29 〔12/6〕 | 0.94 <1/8> | ND | ND | - | - | ND | ND | ND | 0.54 〔10/30〕 | - |
| | Co-60 (Approx. 5 years) | ND | ND | ND | ND | ND | - | - | ND | ND | ND | ND | - |
| | Sb-125 (Approx. 3 years) | ND | ND | 30 <2/12> | ND | ND | - | - | ND | 1.6 <1/1> | ND | ND | - |
| Gross β | | 570 <3/26> | 1,500 〔12/6〕 | 150,000 <2/12> | 3,200 〔12/5〕 | 620 <3/26> | 3,600 *2 <3/23> | 1,700 *2 <2/7> | 240,000 〔12/12〕 | 1,400 〔7/11〕 | 180 〔8/1〕 | 18 <3/12> | 69 <1/29> |
| H-3 (Approx. 12 years) | | 660 <1/8> | 1,700 〔12/6〕 | 6,300 〔12/4〕 | 1,200 〔11/24〕 〔11/27〕 | 1,100 <1/17> | 1300 *2 <3/9> | 13,000 *2 <2/7> | 5,100 〔12/6〕 | 3,200 〔2012/12/12〕 | 460 〔8/1〕 | 170 〔9/18〕 | 170 <1/8> |
| Sr-90(Approx. 29 years) | | Under analysis | Under analysis | Under analysis | Under analysis | Under analysis | - | - | - | 8.3 〔2012/12/12〕 | 4.4 〔7/23〕 | ND | - |

● Since some samples are still under analysis, the highest dose of the Strontium-90 is among those previously announced.
*1 Analysis result of pumped water.
*2 The results are for a reference, since the water was highly turbid. (γ and Gross β were measured after filtration.)

* "ND" indicates that the measurement result is below the detection limit.
* Date of sampling is provided in parentheses. ( ): 2013, < >: 2014
* "*" is provided next to the name of the holes where the sampling could not be performed due to the chemical injection of ground improvement.

# <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 | | 1F, Unit 3 Screen (Inside the Silt Fence) | | 1F, Between the water intake channel of Unit 3 and Unit 4 | | 1F, Unit 4 Screen (Inside the Silt Fence) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cs-134(Approx. 2 years) | 1.8 | (6/21) | 2.8 | (12/2) | 5.3 | (8/5) | 89 | (10/10) | 32 | (10/11) | 73 | (10/10) | 87 | (10/10) | 93 | (10/10) | 370 | (10/9) | 52 | (12/21) | 350 | (7/15) | 28 | (9/16) | 62 | (9/16) |
| Cs-137(Approx.30 years) | 4.5 | <3/17> | 5.8 | (12/2) | 8.6 | (8/5) | 190 | (10/10) | 73 | (10/11) | 170 | (10/10) | 200 | (10/10) | 200 | (10/10) | 830 | (10/9) | 110 | (10/11)<br>(12/21) | 770 | (7/15) | 53 | (12/16) | 140 | (9/16) |
| Gross β | 17 | <1/6> | 46 | (8/19) | 40 | (7/3) | 1,400 | (11/7) | 320 | (8/12) | 740 | (10/28) | 1,200 | (12/8) | 450 | (7/16) | 1,700 | (10/9) | 480 | (10/7) | 1,000 | (7/15) | 390 | (8/12) | 360 | (10/7) |
| H-3 (Approx. 12 years) | 8.6 | (6/26) | 24 | (8/19) | 340 | (6/26) | 4,800 | (11/7) | 510 | (9/2) | 2,800 | (10/28) | 2,800 | (12/8) | 1,600 | (9/1) | 2,100 | (10/28) | 1,200 | (10/7) | 410 | (9/2) | 650 | (8/12) | 400 | (8/12)<br>(10/7) |
| Sr-90 (Approx. 29 years) | 5.8 | (6/26)*1 | — | | 7.4 | (6/26)*1 | 720 | (9/22) | 220 | (8/19) | 480 | (10/14) | 480 | (8/22) | 290 | (10/20) | 430 | (10/14) | 340 | (10/14) | 120 | (9/23) | 190 | (9/23) | 130 | (9/23) |

Unit: Bq/L

| | 1F, South side of Unit 1-4 water intake channel (In front of impermeable wall) | | 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 | | Northeast side of the port entrance | | East side of the south breakwater | | Southeast side of the north breakwater | | South side of the south breakwater | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cs-134(Approx. 2 years) | 9.6 | <3/24> | ND | | 3.3 | (12/24) | 3.3 | (10/17) | 4.4 | (12/24) | 5.0 | (12/2) | 3.5 | (10/17) | ND | | ND | | ND | | ND | | ND | |
| Cs-137(Approx.30 years) | 22 | <3/24> | 3.0 | (7/15) | 7.3 | (10/11) | 9.0 | (10/17) | 10 | (12/24) | 8.4 | (12/2) | 7.8 | (10/17) | ND | | ND | | 1.6 | (10/18) | ND | | ND | |
| Gross β | 380 | <3/10> | 15 | <1/13> | 69 | (8/19) | 74 | (8/19) | 60 | (7/4) | 69 | (8/19) | 79 | (8/19) | ND | | ND | | ND | | ND | | ND | |
| H-3 (Approx. 12 years) | 290 | <3/17> | 1.9 | (11/25) | 68 | (8/19) | 67 | (8/19) | 59 | (8/19) | 52 | (8/19) | 60 | (8/19) | 4.7 | (8/14) | ND | | 6.4 | (10/8) | ND | | ND | |
| Sr-90 (Approx. 29 years) | - | | 0.36 | (6/26)*1 | 49 | (8/19) | - | | - | | - | | - | | - | | - | | - | | - | | - | |

* 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.

● Since some samples are still under analysis, the highest dose of the Strontium-90 is among those previously announced.

*1 Since reanalysis is ongoing, the figures are just for a reference.

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

* Date of sampling is provided in parentheses. ( ): 2013, < >: 2014

* "-" 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 |