<Reference>
September 28, 2012
Tokyo Electric Power Company

# Nuclide Analysis Results of Fish and Shellfish
# (The Ocean Area Within 20km Radius of Fukushima Daiichi NPS) < 1/4 >

(Data summarized on September 28)

| Name of Sample (Region) | Place of Sampling (Place No.) | Date of Sampling | Radioactivity Density [Bq/kg (Raw)] (Half-life) | | |
|---|---|---|---|---|---|
| | | | Cs-134 (Approx. 2 years) | Cs-137 (Approx. 30 years) | Total |
| Greenling (Muscle) No.38 | Around 1km Offshore of Ota River (T-S1) | September 11, 2012 | 21 | 25 | 46 |
| Greenling (Muscle) No.39 | Around 1km Offshore of Ota River (T-S1) | September 11, 2012 | 24 | 38 | 62 |
| Greenling (Muscle) No.40 | Around 1km Offshore of Ota River (T-S1) | September 11, 2012 | 26 | 36 | 62 |
| Greenling (Muscle) No.41 | Around 1km Offshore of Ota River (T-S1) | September 11, 2012 | 32 | 55 | 87 |
| Greenling (Muscle) No.42 | Around 1km Offshore of Ota River (T-S1) | September 11, 2012 | 42 | 72 | 114 |
| Greenling (Muscle) No.43 | Around 1km Offshore of Ota River (T-S1) | September 11, 2012 | 47 | 67 | 114 |
| Greenling (Muscle) No.44 | Around 1km Offshore of Ota River (T-S1) | September 11, 2012 | 32 | 60 | 92 |
| Greenling (Muscle) No.45 | Around 1km Offshore of Ota River (T-S1) | September 11, 2012 | 40 | 60 | 100 |
| Greenling (Muscle) No.46 | Around 1km Offshore of Ota River (T-S1) | September 11, 2012 | 70 | 100 | 170 |
| Greenling (Muscle) No.47 | Around 1km Offshore of Ota River (T-S1) | September 11, 2012 | 46 | 62 | 108 |

* Standard Value (after April 1, 2012) Cs-134+Cs-137: 100Bq/kg

* Analyzed by Tokyo Electric Power Environmental Engineering Co., Inc.

# Nuclide Analysis Results of Fish and Shellfish
# (The Ocean Area Within 20km Radius of Fukushima Daiichi NPS) < 2/4 >

(Data summarized on September 28)

| Name of Sample (Region) | Place of Sampling (Place No.) | Date of Sampling | Radioactivity Density [Bq/kg (Raw)] (Half-life) | | |
|---|---|---|---|---|---|
| | | | Cs-134 (Approx. 2 years) | Cs-137 (Approx. 30 years) | Total |
| Greenling (Muscle) No.48 | Around 1km Offshore of Ota River (T-S1) | September 12, 2012 | 28 | 40 | 68 |
| Greenling (Muscle) No.49 | Around 1km Offshore of Ota River (T-S1) | September 12, 2012 | 36 | 69 | 105 |
| Greenling (Muscle) No.50 | Around 1km Offshore of Ota River (T-S1) | September 12, 2012 | 16 | 27 | 43 |
| Greenling (Muscle) No.51 | Around 1km Offshore of Ota River (T-S1) | September 12, 2012 | 22 | 24 | 46 |
| Greenling (Muscle) No.52 | Around 1km Offshore of Ota River (T-S1) | September 12, 2012 | ND | 14 | 14 |
| Lepidotrigla microptera (Muscle) | Around 10km Offshore of 1F (T-B3) | September 10, 2012 | 4.0 | 9.1 | 13.1 |
| Common Skete (Muscle) | Around 10km Offshore of 1F (T-B3) | September 10, 2012 | 63 | 110 | 173 |
| Microstomus achne (Muscle) | Around 10km Offshore of 1F (T-B3) | September 10, 2012 | 34 | 52 | 86 |
| Flatfish (Muscle) | Around 10km Offshore of 1F (T-B3) | September 10, 2012 | ND | 6.1 | 6.1 |
| Marbled sole (Muscle) | Around 10km Offshore of 1F (T-B3) | September 10, 2012 | 8.6 | 22 | 30.6 |

* When the measurement value is below the detection limit, "ND" is marked. The detection limits are as follows.

Cs-134: Approx. 14Bq/kg (Raw)

As the detection limit may vary depending on the detectors and sample properties, there are cases where nuclides below the detection limit are detected.

* Standard Value (after April 1, 2012) Cs-134+Cs-137: 100Bq/kg

* Analyzed by Tokyo Electric Power Environmental Engineering Co., Inc.

# Nuclide Analysis Results of Fish and Shellfish
# (The Ocean Area Within 20km Radius of Fukushima Daiichi NPS) < 3/4 >

(Data summarized on September 28)

| Name of Sample (Region) | Place of Sampling (Place No.) | Date of Sampling | Radioactivity Density [Bq/kg (Raw)] (Half-life) | | |
|---|---|---|---|---|---|
| | | | Cs-134 (Approx. 2 years) | Cs-137 (Approx. 30 years) | Total |
| Dory (Muscle) | Around 10km Offshore of 1F (T-B3) | September 10, 2012 | 8.1 | 8.9 | 17 |
| Stone flounder (Muscle) | Around 10km Offshore of 2F (T-B4) | September 10, 2012 | 49 | 68 | 117 |
| Zenopsis nebulosa (Muscle) | Around 10km Offshore of 2F (T-B4) | September 10, 2012 | ND | ND | ND |
| Lepidotrigla microptera (Muscle) | Around 10km Offshore of 2F (T-B4) | September 10, 2012 | 5.4 | 12 | 17.4 |
| Common Skete (Muscle) | Around 10km Offshore of 2F (T-B4) | September 10, 2012 | 100 | 180 | 280 |
| Crimson sea bream (Muscle) | Around 10km Offshore of 2F (T-B4) | September 10, 2012 | ND | 7.1 | 7.1 |
| Flatfish (Muscle) | Around 10km Offshore of 2F (T-B4) | September 10, 2012 | 31 | 54 | 85 |
| Smooth dogfish (Muscle) | Around 10km Offshore of 2F (T-B4) | September 10, 2012 | 12 | 15 | 27 |
| Marbled sole (Muscle) | Around 10km Offshore of 2F (T-B4) | September 10, 2012 | 49 | 64 | 113 |
| Pagrus major (Muscle) | Around 10km Offshore of 2F (T-B4) | September 10, 2012 | ND | ND | ND |

* When the measurement value is below the detection limit, "ND" is marked. The detection limits are as follows.

Cs-134: Approx. 4.4Bq/kg (Raw), Cs-137: Approx. 4.8Bq/kg (Raw)

As the detection limit may vary depending on the detectors and sample properties, there are cases where nuclides below the detection limit are detected.

* Standard Value (after April 1, 2012) Cs-134+Cs-137: 100Bq/kg

* Analyzed by Tokyo Electric Power Environmental Engineering Co., Inc.

# Nuclide Analysis Results of Fish and Shellfish
# (The Ocean Area Within 20km Radius of Fukushima Daiichi NPS) < 4/4 >

(Data summarized on September 28)

| Name of Sample (Region) | Place of Sampling (Place No.) | Date of Sampling | Radioactivity Density [Bq/kg (Raw)] (Half-life) | | |
|---|---|---|---|---|---|
| | | | Cs-134 (Approx. 2 years) | Cs-137 (Approx. 30 years) | Total |
| Dory (Muscle) | Around 10km Offshore of 2F (T-B4) | September 10, 2012 | 13 | 19 | 32 |
| Roundnose flounder (Muscle) | Around 10km Offshore of 2F (T-B4) | September 10, 2012 | 10 | 21 | 31 |
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* Standard Value (after April 1, 2012) Cs-134+Cs-137: 100Bq/kg

* Analyzed by Tokyo Electric Power Environmental Engineering Co., Inc.

# Nuclide Analysis Results of Fish and Shellfish
# (The Ocean Area Within 20km Radius of Fukushima Daiichi NPS) < 1/3 >

[ Measurement result of fish and selfish where radioactive materials other than Cs were detected ]

(Data summarized on September 28)

| Name of Sample (Region) | Place of Sampling （Place No.） | Date of Sampling | Radioactivity Density [Bq/kg (Raw)] (Half-life) | | |
|---|---|---|---|---|---|
| | | | Ag-110m (Approx. 250 days) | Sr-90* (Approx. 29 years) | Total |
| Andrea cuttlefish (Whole) | Around 15km Offshore of Odaka Ward (T-B1) | May 17, 2012 | 26 | － | ND |
| Andrea cuttlefish (Whole) | Around 15km Offshore of Odaka Ward (T-B1) | May 30, 2012 | 5.4 | － | ND |
| Andrea cuttlefish (Whole) | Around 18km Offshore of Ukedo River (T-B2) | May 30, 2012 | 26 | － | ND |
| Andrea cuttlefish (Whole) | Around 10km Offshore of 2F (T-B4) | April 26, 2012 | 23 | － | ND |
| Blue crab (Whole) | Around 1km Offshore of Ota River (T-S1) | May 9, 2012 | 21 | － | ND |
| Blue crab (Whole) | Around 1km Offshore of Ota River (T-S1) | June 6, 2012 | 15 | － | ND |
| Blue crab (Whole) | Around 3km Offshore of Odaka Ward (T-S2) | June 6, 2012 | 23 | － | 7.7 |
| Blue crab (Whole) | Around 2km Offshore of 2F (T-S7) | May 30, 2012 | 19 | － | 7.1 |
| Sebastes cheni (Muscle) | Around 3km Offshore of 1F (T-S4) | May 25, 2012 | ND | 0.33 | 1590 |
| Sebastes cheni (Muscle) | Around 2km Offshore of Kido River (T-S5) | May 2, 2012 | ND | 0.53 | 1880 |

- " - " : Out of scope.
- When the measurement value is below the detection limit, "ND" is marked. The detection limits are as follows.
  Ag-110m: Approx. 10Bq/kg (Raw), Cs-134: Approx. 6.9Bq/kg (Raw), Cs-137: Approx. 5.2Bq/kg (Raw)
  As the detection limit may vary depending on the detectors and sample properties, there are cases where nuclides below the detection limit are detected.
- Standard Value (after April 1, 2012) Cs-134+Cs-137: 100Bq/kg
- Ag-110m: Analyzed by Tokyo Electric Power Environmental Engineering Co., Inc., Sr-90: Analyzed by THE GENERAL ENVIRONMENTAL TECHNOS Co., LTD.

* Measured by the whole fish (nuclide analysis results of Sr-90 was added on November 30, 2012).

# Nuclide Analysis Results of Fish and Shellfish
# (The Ocean Area Within 20km Radius of Fukushima Daiichi NPS) < 2/3 >

[ Measurement result of fish and selfish where radioactive materials other than Cs were detected ]

(Data summarized on September 28)

| Name of Sample (Region) | Place of Sampling （Place No.） | Date of Sampling | Radioactivity Density [Bq/kg (Raw)] (Half-life) | | |
|---|---|---|---|---|---|
| | | | Ag-110m (Approx. 250 days) | Sr-90* (Approx. 29 years) | Total |
| Loliginid (Whole) | Around 18km Offshore of Ukedo River (T-B2) | June 14, 2012 | 8.2 | － | ND |
| Sea bass (Muscle) | Around 2km Offshore of Kido River (T-S5) | April 7, 2012 | ND | 0.25 | 1610 |
| Microstomus achne (Muscle) | Around 2km Offshore of Kido River (T-S5) | April 11, 2012 | ND | 1.5 | 1260 |
| Microstomus achne (Muscle) | Around 2km Offshore of Kido River (T-S5) | May 2, 2012 | ND | 1.1 | 1140 |
| Ovalipes punctatus (Whole) | Around 1km Offshore of Ota River (T-S1) | May 9, 2012 | 25 | － | ND |
| Ovalipes punctatus (Whole) | Around 1km Offshore of Ota River (T-S1) | June 6, 2012 | 13 | － | 8.3 |
| Ovalipes punctatus (Whole) | Around 3km Offshore of Odaka Ward (T-S2) | May 9, 2012 | 24 | － | ND |
| Ovalipes punctatus (Whole) | Around 3km Offshore of Odaka Ward (T-S2) | June 6, 2012 | 24 | － | ND |
| Ovalipes punctatus (Whole) | round 3km Offshore of Ukedo River (T-S3) | June 27, 2012 | 22 | － | 9.6 |
| Ovalipes punctatus (Whole) | Around 3km Offshore of 1F (T-S4) | May 25, 2012 | 43 | － | 15.1 |

- " - " : Out of scope.
- When the measurement value is below the detection limit, "ND" is marked. The detection limits are as follows.
  Ag-110m: Approx. 12Bq/kg (Raw), Cs-134: Approx. 5.0Bq/kg (Raw), Cs-137: Approx. 5.0Bq/kg (Raw)
  As the detection limit may vary depending on the detectors and sample properties, there are cases where nuclides below the detection limit are detected.
- Standard Value (after April 1, 2012) Cs-134+Cs-137: 100Bq/kg
- Ag-110m: Analyzed by Tokyo Electric Power Environmental Engineering Co., Inc., Sr-90: Analyzed by THE GENERAL ENVIRONMENTAL TECHNOS Co., LTD.

* Measured by the whole fish (nuclide analysis results of Sr-90 was added on November 30, 2012).

# Nuclide Analysis Results of Fish and Shellfish
# (The Ocean Area Within 20km Radius of Fukushima Daiichi NPS) < 3/3 >

[ Measurement result of fish and selfish where radioactive materials other than Cs were detected ]

(Data summarized on September 28)

| Name of Sample (Region) | Place of Sampling （Place No.） | Date of Sampling | Radioactivity Density [Bq/kg (Raw)] (Half-life) | | |
|---|---|---|---|---|---|
| | | | Ag-110m (Approx. 250 days) | Sr-90* (Approx. 29 years) | Total |
| Ovalipes punctatus (Whole) | Around 3km Offshore of 1F (T-S4) | June 27, 2012 | 24 | － | 8.2 |
| Ovalipes punctatus (Whole) | Around 2km Offshore of Kido River (T-S5) | April 7, 2012 | 42 | － | 26 |
| Ovalipes punctatus (Whole) | Around 2km Offshore of Kido River (T-S5) | April 11, 2012 | 69 | － | 11.9 |
| Flatfish (Muscle) | Around 3km Offshore of Odaka Ward (T-S2) | May 9, 2012 | ND | 0.12 | 1190 |
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- " - " : Out of scope.
- When the measurement value is below the detection limit, "ND" is marked. The detection limits are as follows.
  Ag-110m: Approx. 9.3Bq/kg (Raw), Cs-134: Approx. 4.8Bq/kg (Raw)
  As the detection limit may vary depending on the detectors and sample properties, there are cases where nuclides below the detection limit are detected.
- Standard Value (after April 1, 2012) Cs-134+Cs-137: 100Bq/kg
- Ag-110m: Analyzed by Tokyo Electric Power Environmental Engineering Co., Inc., Sr-90: Analyzed by THE GENERAL ENVIRONMENTAL TECHNOS Co., LTD.

* Measured by the whole fish (nuclide analysis results of Sr-90 was added on November 30, 2012).