Reference
December 20, 2018
Tokyo Electric Power Company Holdings, Inc.
Fukushima Daiichi D &D Engineering Company

Nuclide Analysis Results of Fish and Shellfish
(Ocean Area Within 20km Radius of Fukushima Daiichi Nuclear Power Station) <1/9>
(excluding the port)

Name of Sample (Region)	Place of Sampling (Place No.)	Date of Sampling	Radioactivity Concentration [Bq/kg (Raw)] (Half-life)		
			Cs-134 (Approx. 2 years)	Cs-137 (Approx. 30 years)	CS (Sum)
Stone flounder (muscle)	Around 1km Offshore of Ota River (T-S1)	November 2, 2018	ND(3.8)	ND(3.2)	ND
Japanese angel shark (muscle)	Around 1km Offshore of Ota River (T-S1)	November 2, 2018	ND(3.7)	4.6	4.6
Black sea bream (muscle)	Around 1km Offshore of Ota River (T-S1)	November 2, 2018	ND(2.9)	ND(3.5)	ND
Sea raven (muscle)	Around 1km Offshore of Ota River (T-S1)	November 2, 2018	ND(3.1)	ND(3.5)	ND
Common skete (muscle)	Around 1km Offshore of Ota River (T-S1)	November 2, 2018	ND(4.1)	ND(3.7)	ND
Chum salmon (muscle)	Around 1km Offshore of Ota River (T-S1)	November 2, 2018	ND(4.0)	ND(3.3)	ND
Drumfish (muscle)	Around 1km Offshore of Ota River (T-S1)	November 2, 2018	ND(3.8)	ND(3.6)	ND
Flatfish ① (muscle)	Around 1km Offshore of Ota River (T-S1)	November 2, 2018	ND(3.7)	ND(4.2)	ND
Flatfish ② (muscle)	Around 1km Offshore of Ota River (T-S1)	November 2, 2018	ND(3.8)	ND(3.9)	ND
Flathead (muscle)	Around 1km Offshore of Ota River (T-S1)	November 2, 2018	ND(3.1)	ND(3.6)	ND

*When analyzed results are less than detection limits of radioactivity concentrations, the values are showed as "ND." Detection limits of individual nuclides are shown in parenthesis.

*Since April 1, 2012, the baseline is the sum of radioactivity concentrations of Cs-134 and Cs-137, which is 100Bq/kg.

*Analyzed by: Tokyo Power Technology Ltd.

Nuclide Analysis Results of Fish and Shellfish
(Ocean Area Within 20km Radius of Fukushima Daiichi Nuclear Power Station) <2/9>
(excluding the port)

Name of Sample (Region)	Place of Sampling (Place No.)	Date of Sampling	Radioactivity Concentration [Bq/kg (Raw)] (Half-life)		
			Cs-134 (Approx. 2 years)	Cs-137 (Approx. 30 years)	CS (Sum)
Lepidotrigla microptena (muscle)	Around 3km Offshore of Odaka Ward (T-S2)	November 2, 2018	ND(3.2)	ND(3.3)	ND
Common skete (muscle)	Around 3km Offshore of Odaka Ward (T-S2)	November 2, 2018	ND(3.3)	ND(3.7)	ND
Microstomus achne (muscle)	Around 3km Offshore of Odaka Ward (T-S2)	November 2, 2018	ND(3.6)	ND(3.8)	ND
Flatfish ① (muscle)	Around 3km Offshore of Odaka Ward (T-S2)	November 2, 2018	ND(3.7)	ND(3.7)	ND
Flatfish ② (muscle)	Around 3km Offshore of Odaka Ward (T-S2)	November 2, 2018	ND(3.9)	ND(3.2)	ND
Searobin (muscle)	Around 3km Offshore of Odaka Ward (T-S2)	November 2, 2018	ND(3.1)	ND(3.4)	ND
Marbled sole (muscle)	Around 3km Offshore of Odaka Ward (T-S2)	November 2, 2018	ND(3.8)	ND(3.9)	ND
Lepidotrigla microptena (muscle)	Around 3km Offshore of Ukedo River (T-S3)	November 15, 2018	ND(3.6)	ND(3.9)	ND
Flatfish (muscle)	Around 3km Offshore of Ukedo River (T-S3)	November 15, 2018	ND(4.1)	ND(3.2)	ND
Searobin (muscle)	Around 3km Offshore of Ukedo River (T-S3)	November 15, 2018	ND(3.3)	ND(3.5)	ND

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Nuclide Analysis Results of Fish and Shellfish
(Ocean Area Within 20km Radius of Fukushima Daiichi Nuclear Power Station) <3/9>
(excluding the port)

Name of Sample (Region)	Place of Sampling (Place No.)	Date of Sampling	Radioactivity Concentration [Bq/kg (Raw)] (Half-life)		
			Cs-134 (Approx. 2 years)	Cs-137 (Approx. 30 years)	CS (Sum)
Marbled sole (muscle)	Around 3km Offshore of Ukedo River (T-S3)	November 15, 2018	ND(3.3)	ND(3.2)	ND
Stone flounder (muscle)	Around 3km Offshore of Fukushima Daiichi (T-S4)	November 15, 2018	ND(4.1)	ND(3.9)	ND
Sea raven (muscle)	Around 3km Offshore of Fukushima Daiichi (T-S4)	November 15, 2018	ND(4.1)	ND(3.6)	ND
Common skete (muscle)	Around 3km Offshore of Fukushima Daiichi (T-S4)	November 15, 2018	ND(3.4)	5.9	5.9
Microstomus achne (muscle)	Around 3km Offshore of Fukushima Daiichi (T-S4)	November 15, 2018	ND(3.0)	ND(3.7)	ND
Flatfish (muscle)	Around 3km Offshore of Fukushima Daiichi (T-S4)	November 15, 2018	ND(3.0)	ND(3.9)	ND
Searobin (muscle)	Around 3km Offshore of Fukushima Daiichi (T-S4)	November 15, 2018	ND(4.0)	ND(3.2)	ND
Marbled sole (muscle)	Around 3km Offshore of Fukushima Daiichi (T-S4)	November 15, 2018	ND(2.8)	ND(4.1)	ND
Greenling (muscle)	Around 2km Offshore of Kido River (T-S5)	November 20, 2018	ND(3.4)	ND(3.8)	ND
Rock porgy (muscle)	Around 2km Offshore of Kido River (T-S5)	November 20, 2018	ND(4.1)	ND(3.8)	ND

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Nuclide Analysis Results of Fish and Shellfish
(Ocean Area Within 20km Radius of Fukushima Daiichi Nuclear Power Station) <4/9>
(excluding the port)

Name of Sample (Region)	Place of Sampling (Place No.)	Date of Sampling	Radioactivity Concentration [Bq/kg (Raw)] (Half-life)		
			Cs-134 (Approx. 2 years)	Cs-137 (Approx. 30 years)	CS (Sum)
Sea raven (muscle)	Around 2km Offshore of Kido River (T-S5)	November 20, 2018	ND(3.5)	ND(3.1)	ND
Common skete (muscle)	Around 2km Offshore of Kido River (T-S5)	November 20, 2018	ND(3.8)	ND(3.8)	ND
Microstomus achne (muscle)	Around 2km Offshore of Kido River (T-S5)	November 20, 2018	ND(3.4)	ND(4.5)	ND
Flatfish (muscle)	Around 2km Offshore of Kido River (T-S5)	November 20, 2018	ND(2.6)	ND(4.0)	ND
Smooth dogfish (muscle)	Around 2km Offshore of Kido River (T-S5)	November 20, 2018	ND(3.8)	2.8	2.8
Flathead (muscle)	Around 2km Offshore of Kido River (T-S5)	November 20, 2018	ND(4.3)	3.9	3.9
Common skete (muscle)	Around 2km Offshore of Fukushima Daini (T-S7)	November 20, 2018	ND(3.9)	3.9	3.9
Flatfish (muscle)	Around 2km Offshore of Fukushima Daini (T-S7)	November 20, 2018	ND(2.6)	ND(3.9)	ND
Japanese angel shark (muscle)	Around 4km Offshore of Kumagawa (T-S8)	November 22, 2018	ND(3.2)	15	15
Common skete (muscle)	Around 4km Offshore of Kumagawa (T-S8)	November 22, 2018	ND(3.5)	ND(4.1)	ND

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Nuclide Analysis Results of Fish and Shellfish
(Ocean Area Within 20km Radius of Fukushima Daiichi Nuclear Power Station) <5/9>
(excluding the port)

Name of Sample (Region)	Place of Sampling (Place No.)	Date of Sampling	Radioactivity Concentration [Bq/kg (Raw)] (Half-life)		
			Cs-134 (Approx. 2 years)	Cs-137 (Approx. 30 years)	CS (Sum)
Flatfish ① (muscle)	Around 4km Offshore of Kumagawa (T-S8)	November 22, 2018	ND(3.9)	ND(3.9)	ND
Flatfish ② (muscle)	Around 4km Offshore of Kumagawa (T-S8)	November 22, 2018	ND(3.1)	ND(3.1)	ND
Stone flounder (muscle)	Around 15km Offshore of Odaka Ward (T-B1)	November 6, 2018	ND(4.4)	ND(4.1)	ND
Lepidotrigla microptena (muscle)	Around 15km Offshore of Odaka Ward (T-B1)	November 6, 2018	ND(3.2)	ND(3.9)	ND
Common skete (muscle)	Around 15km Offshore of Odaka Ward (T-B1)	November 6, 2018	ND(4.0)	ND(3.9)	ND
Crimson sea bream (muscle)	Around 15km Offshore of Odaka Ward (T-B1)	November 6, 2018	ND(3.9)	ND(3.4)	ND
Flatfish (muscle)	Around 15km Offshore of Odaka Ward (T-B1)	November 6, 2018	ND(3.6)	ND(3.7)	ND
Searobin (muscle)	Around 15km Offshore of Odaka Ward (T-B1)	November 6, 2018	ND(2.7)	ND(4.2)	ND
Marbled sole (muscle)	Around 15km Offshore of Odaka Ward (T-B1)	November 6, 2018	ND(4.2)	ND(3.2)	ND
Red sea bream (muscle)	Around 15km Offshore of Odaka Ward (T-B1)	November 6, 2018	ND(2.6)	ND(3.3)	ND

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Nuclide Analysis Results of Fish and Shellfish
(Ocean Area Within 20km Radius of Fukushima Daiichi Nuclear Power Station) <6/9>
(excluding the port)

Name of Sample (Region)	Place of Sampling (Place No.)	Date of Sampling	Radioactivity Concentration [Bq/kg (Raw)] (Half-life)		
			Cs-134 (Approx. 2 years)	Cs-137 (Approx. 30 years)	CS (Sum)
John dory (muscle)	Around 15km Offshore of Odaka Ward (T-B1)	November 6, 2018	ND(3.9)	ND(3.7)	ND
Stone flounder (muscle)	Around 18km Offshore of Ukedo River (T-B2)	November 6, 2018	ND(4.0)	8.4	8.4
Lepidotrigla microptena (muscle)	Around 18km Offshore of Ukedo River (T-B2)	November 6, 2018	ND(3.9)	ND(3.7)	ND
Common skete (muscle)	Around 18km Offshore of Ukedo River (T-B2)	November 6, 2018	ND(3.6)	ND(3.5)	ND
Crimson sea bream (muscle)	Around 18km Offshore of Ukedo River (T-B2)	November 6, 2018	ND(3.5)	ND(3.4)	ND
Flatfish ① (muscle)	Around 18km Offshore of Ukedo River (T-B2)	November 6, 2018	ND(3.9)	ND(3.9)	ND
Flatfish ② (muscle)	Around 18km Offshore of Ukedo River (T-B2)	November 6, 2018	ND(4.1)	ND(4.0)	ND
Smooth dogfish (muscle)	Around 18km Offshore of Ukedo River (T-B2)	November 6, 2018	ND(3.3)	ND(3.9)	ND
Littlemouth flounder (muscle)	Around 18km Offshore of Ukedo River (T-B2)	November 6, 2018	ND(3.9)	ND(3.8)	ND
Marbled sole (muscle)	Around 18km Offshore of Ukedo River (T-B2)	November 6, 2018	ND(3.7)	ND(4.0)	ND

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Nuclide Analysis Results of Fish and Shellfish
(Ocean Area Within 20km Radius of Fukushima Daiichi Nuclear Power Station) <7/9>
(excluding the port)

Name of Sample (Region)	Place of Sampling (Place No.)	Date of Sampling	Radioactivity Concentration [Bq/kg (Raw)] (Half-life)		
			Cs-134 (Approx. 2 years)	Cs-137 (Approx. 30 years)	CS (Sum)
Red sea bream (muscle)	Around 18km Offshore of Ukedo River (T-B2)	November 6, 2018	ND(4.0)	ND(3.2)	ND
John dory (muscle)	Around 18km Offshore of Ukedo River (T-B2)	November 6, 2018	ND(3.0)	ND(3.4)	ND
Roundnose flounder (muscle)	Around 18km Offshore of Ukedo River (T-B2)	November 6, 2018	ND(3.7)	ND(3.7)	ND
Ridged-eye flounder (muscle)	Around 18km Offshore of Ukedo River (T-B2)	November 6, 2018	ND(4.3)	ND(3.0)	ND
Stone flounder (muscle)	Around 10km Offshore of Fukushima Daiichi (T-B3)	November 12, 2018	ND(3.3)	ND(4.1)	ND
Japanese angel shark (muscle)	Around 10km Offshore of Fukushima Daiichi (T-B3)	November 12, 2018	ND(3.5)	ND(3.7)	ND
Common skete (muscle)	Around 10km Offshore of Fukushima Daiichi (T-B3)	November 12, 2018	ND(4.2)	ND(4.3)	ND
Globefish (muscle)	Around 10km Offshore of Fukushima Daiichi (T-B3)	November 12, 2018	ND(4.0)	ND(4.2)	ND
Crimson sea bream (muscle)	Around 10km Offshore of Fukushima Daiichi (T-B3)	November 12, 2018	ND(3.5)	ND(3.9)	ND
Flatfish (muscle)	Around 10km Offshore of Fukushima Daiichi (T-B3)	November 12, 2018	ND(4.0)	ND(3.2)	ND

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Nuclide Analysis Results of Fish and Shellfish
(Ocean Area Within 20km Radius of Fukushima Daiichi Nuclear Power Station) <8/9>
(excluding the port)

Name of Sample (Region)	Place of Sampling (Place No.)	Date of Sampling	Radioactivity Concentration [Bq/kg (Raw)] (Half-life)		
			Cs-134 (Approx. 2 years)	Cs-137 (Approx. 30 years)	CS (Sum)
Searobin (muscle)	Around 10km Offshore of Fukushima Daiichi (T-B3)	November 12, 2018	ND(3.1)	ND(3.9)	ND
Marbled sole (muscle)	Around 10km Offshore of Fukushima Daiichi (T-B3)	November 12, 2018	ND(3.3)	ND(3.9)	ND
Red sea bream (muscle)	Around 10km Offshore of Fukushima Daiichi (T-B3)	November 12, 2018	ND(3.8)	ND(4.0)	ND
Ridged-eye flounder (muscle)	Around 10km Offshore of Fukushima Daiichi (T-B3)	November 12, 2018	ND(3.2)	ND(3.5)	ND
Lepidotrigla microptena (muscle)	Around 10km Offshore of Fukushima Daini (T-B4)	November 12, 2018	ND(4.0)	ND(3.0)	ND
Common skete (muscle)	Around 10km Offshore of Fukushima Daini (T-B4)	November 12, 2018	ND(2.5)	ND(3.5)	ND
Globefish (muscle)	Around 10km Offshore of Fukushima Daini (T-B4)	November 12, 2018	ND(3.6)	ND(3.0)	ND
Crimson sea bream (muscle)	Around 10km Offshore of Fukushima Daini (T-B4)	November 12, 2018	ND(3.8)	ND(3.3)	ND
Flatfish (muscle)	Around 10km Offshore of Fukushima Daini (T-B4)	November 12, 2018	ND(4.1)	ND(3.8)	ND
Searobin (muscle)	Around 10km Offshore of Fukushima Daini (T-B4)	November 12, 2018	ND(3.8)	ND(3.8)	ND

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Nuclide Analysis Results of Fish and Shellfish
(Ocean Area Within 20km Radius of Fukushima Daiichi Nuclear Power Station) <9/9>
(excluding the port)

Name of Sample (Region)	Place of Sampling (Place No.)	Date of Sampling	Radioactivity Concentration [Bq/kg (Raw)] (Half-life)		
			Cs-134 (Approx. 2 years)	Cs-137 (Approx. 30 years)	CS (Sum)
Smooth dogfish (muscle)	Around 10km Offshore of Fukushima Daini (T-B4)	November 12, 2018	ND(3.4)	ND(4.0)	ND
Red sea bream (muscle)	Around 10km Offshore of Fukushima Daini (T-B4)	November 12, 2018	ND(3.6)	ND(3.6)	ND
Roundnose flounder (muscle)	Around 10km Offshore of Fukushima Daini (T-B4)	November 12, 2018	ND(3.8)	ND(3.2)	ND
Ridged-eye flounder (muscle)	Around 10km Offshore of Fukushima Daini (T-B4)	November 12, 2018	ND(4.1)	ND(3.5)	ND

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