## Nuclide Analysis Results of Fish and Shellfish <Ocean Area Within 20km Radius of Fukushima Daiichi Nuclear Power Station> Samples collected in the third quarter of FY2018

[Measurement results of Sr-90 (half-life approx. 29 years) in fish]

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Name of Sample (Region)				Radioactivity Concentration [Bq/kg(Raw)] (Half-life)	
		Place of Sampling (Place No.)	Date of Sampling	Sr-90 *1 (Approx. 29 years)	Reference*1 (Sum of Cs-134 and Cs-137)
Black sea bream (whole)	*2	Around 1km Offshore of Ota River (T-S1)	November 2, 2018	0.088	ND
Microstomus achne (whole)	*3	Around 3km Offshore of Fukushima Daiichi NPS (T-S4)	October 11, 2018	0.19	10
Black sea bream (whole)	*2	Around 2km Offshore of Kido River (T-S5)	December 4, 2018	0.037	ND
Japanese angel shark (whole)	*2	Around 4km Offshore of Kumagawa (T-S8)	November 22, 2018	0.031	15
Stone flounder (whole)	*3	Around 18km Offshore of Ukedo River (T-B2)	November 6, 2018	0.014	8.4

<sup>\*1</sup> Cs: Edible parts of fish were used for the measurement. Sr: Whole of fish were used for the measurement.

The sum of Cs-134 and Cs-137 radioactivity concentrations as a standard value (since April 1, 2012) is 100Bq per kg.

<sup>\*</sup>The Sr-90 analysis was conducted by \*2KANSO CO., LTD. and by \*3Kyushu Environmental Evaluation Association.

## Nuclide Analysis Results of Fish and Shellfish <Ocean Area Within 20km Radius of Fukushima Daiichi Nuclear Power Station> Samples collected in the third quarter of FY2018

[Measurement results of Tritium (half-life approx. 12 years) in fish] Place of Sampling(Place No.): Around 4km Offshore of Kumagawa (T-S8)

Name of Sample (Region)	Date of Sampling	Tritium concentration (Bq/L)		Tritium concentration (Bq/kg (Raw))		Reference (Sum of Cs-134
		Free Water Tritium	Organically Bound Tritium	Free Water Tritium	Organically Bound Tritium	and Cs-137) (Bq/kg (Raw))
Flatfish (muscle)	October 18, 2018	0.11	ND(0.27)	0.084	ND(0.038)	ND
Flatfish (muscle)	November 22, 2018	0.059	ND(0.27)	0.047	ND(0.038)	ND
Flatfish (muscle)	December 20, 2018	0.070	ND(0.27)	0.056	ND(0.037)	ND

## Reference

	Date of Sampling	Tritium concentration (Bq/L)
Around 4km Offshore	October 17, 2018	0.066
of Kumagawa (T-S8)	November 21, 2018	0.061
Seawater	December 19, 2018	0.073

<sup>\*</sup>The sum of Cs-134 and Cs-137 radioactivity concentrations as a standard value (since April 1, 2012) is 100Bq per kg.

<sup>\*</sup>The tritium analysis was conducted by Kyushu Environmental Evaluation Association.

<sup>\*</sup>Edible parts of fish were used for the measurement.

<sup>\*</sup>Free Water Tritium means tritium which is contained in the moisture of fish muscles and the values are compared with tritium concentrations in seawater where fish lives.

Organically Bound Tritium means tritium which is contained in dried fish muscles and the values show tritium concentrations in the vapor generated when dried fish is burned.

<sup>\*</sup>The measurement results are calculated to two significant figures.

<sup>\*</sup>ND, not detected, indicates that a value is less than the detection limit of a radioactive concentration. The detection limit is provided in parenthesis.