(Appendix)

Americium and Curium analysis result in the ocean soil

1. Analysis result

(Unit：Bq/kg･Dry soil)

Sampling spot	Date of sampling/ Analyses organization	Pu-238*1	Pu-239*1 Pu-240*1	U-234*2	U-235*2	U-238*2	Am-241	Cm-242	Cm-243 Cm-244
3 km offshore of Ena	Sep. 8/ Japan Chemical Analysis Center	N.D. [$<1.4\times10^{-2}$]	$(4.5\pm0.29)\times10^{-1}$	$(5.5\pm0.40)\times10^{0}$	$(2.2\pm0.71)\times10^{-1}$	$(6.4\pm0.44)\times10^{0}$	$(1.8\pm0.16)\times10^{-1}$	N.D. [$<1.3\times10^{-2}$]	N.D. [$<1.2\times10^{-2}$]
8km Offshore of Iwasawa Shore	Sep. 9/ Japan Chemical Analysis Center	N.D. [$<1.3\times10^{-2}$]	$(4.8\pm0.31)\times10^{-1}$	$(6.4\pm0.36)\times10^{0}$	$(2.5\pm0.56)\times10^{-1}$	$(6.1\pm0.35)\times10^{0}$	$(2.1\pm0.17)\times10^{-1}$	N.D. [$<1.2\times10^{-2}$]	N.D. [$<1.2\times10^{-2}$]
5 km offshore of Kashima		N.D. [$<1.5\times10^{-2}$]	$(4.0\pm0.27)\times10^{-1}$	$(2.8\pm0.21)\times10^{0}$	N.D. [$<1.2\times10^{-1}$]	$(2.2\pm0.18)\times10^{0}$	$(1.4\pm0.14)\times10^{-1}$	N.D. [$<1.1\times10^{-2}$]	N.D. [$<1.1\times10^{-2}$]
North of Discharge Channel of 5 and 6u of 1F	Sep. 12/ Japan Chemical Analysis Center	N.D. [$<1.4\times10^{-2}$]	$(8.6\pm1.1)\times10^{-2}$	$(1.4\pm0.15)\times10^{0}$	N.D. [$<1.5\times10^{-1}$]	$(1.5\pm0.17)\times10^{0}$	$(2.9\pm0.58)\times10^{-2}$	N.D. [$<1.3\times10^{-2}$]	N.D. [$<1.1\times10^{-2}$]
3km Offshore of Haramachi Ward	Sep. 13/ Japan Chemical Analysis Center	N.D. [$<1.3\times10^{-2}$]	$(3.9\pm0.26)\times10^{-1}$	$(2.4\pm0.20)\times10^{0}$	N.D. [$<1.4\times10^{-1}$]	$(2.0\pm0.18)\times10^{0}$	$(1.5\pm0.14)\times10^{-1}$	N.D. [$<1.3\times10^{-2}$]	N.D. [$<1.2\times10^{-2}$]
Around South Discharge Channel of 1-4U of 1F	Sep. 15/ Japan Chemical Analysis Center	N.D. [$<1.5\times10^{-2}$]	$(1.4\pm0.14)\times10^{-1}$	$(2.3\pm0.21)\times10^{0}$	N.D. [$<1.6\times10^{-1}$]	$(2.4\pm0.21)\times10^{0}$	$(3.8\pm0.71)\times10^{-2}$	N.D. [$<1.2\times10^{-2}$]	N.D. [$<1.1\times10^{-2}$]
3km offshore of Iwasawa shore		N.D. [$<1.7\times10^{-2}$]	$(4.9\pm0.34)\times10^{-1}$	$(6.9\pm0.46)\times10^{0}$	$(2.5\pm0.72)\times10^{-1}$	$(8.1\pm0.52)\times10^{0}$	$(2.0\pm0.18)\times10^{-1}$	N.D. [$<1.5\times10^{-2}$]	N.D. [$<1.4\times10^{-2}$]
3km offshore of Odaka Ward		N.D. [$<1.3\times10^{-2}$]	$(1.6\pm0.16)\times10^{-1}$	$(3.0\pm0.26)\times10^{0}$	$(2.4\pm0.66)\times10^{-1}$	$(3.6\pm0.29)\times10^{0}$	$(7.3\pm0.98)\times10^{-2}$	N.D. [$<1.2\times10^{-2}$]	N.D. [$<1.2\times10^{-2}$]
15 km offshore of Fukushima Daiichi	Sep. 25/ Japan Chemical Analysis Center	N.D. [$<1.2\times10^{-2}$]	$(6.0\pm0.35)\times10^{-1}$	$(1.0\pm0.51)\times10^{1}$	$(4.3\pm0.87)\times10^{-1}$	$(9.2\pm0.48)\times10^{0}$	$(2.7\pm0.20)\times10^{-1}$	N.D. [$<1.2\times10^{-2}$]	N.D. [$<1.2\times10^{-2}$]
Average nuclide density ratio in Unit 1 to 3 (Ratio when Pu-238 is assumed to be 1) *3		1	—	—	—	—	0.1	10	1

*1：Announced on Oct.6 and 25, 2011. *2：Announced on Oct.16 and 25, 2011 *3：Value calculated by ORIGEN code

2. Evaluation

Detected Am-241 cannot be judged to be caused by the nuclear accident of this time for reasons below.

- Detected Pu-239 and 240 are within the range of past (FY1999 to FY 2008) analysis in the sea around Fukushima Daiichi Nuclear Power Station and Fukushima Daini Nuclear Power Station.
- Detected U-234, U-235 and U-238 are evaluated to be as same level as those exist in the natural environment
- Cm-242, Cm-243 and Cm-244, the nuclides that do not naturally exist, are not detected.

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