## Samples for calculating thyroid equivalent dose

July 22, 2013 Tokyo Electric Power Company

<Reference>

The base population for calculating thyroid equivalent dose varies according to objectives.

• WHO (World Health Organization):

Including only those who have had the actual thyroid equivalent dose level measured for academic purposes

• Long-term health management:

Targeting all samples and using conservative estimation figures for the purpose of health management Instrument

		Instrument		
		Thyroid monitor	Full-body scanner	
I-131 Detection status	I-131 detected (Assessed with actual figures)	Data submitted to WHO (4.2012): Academic purpose 100mSv+ : 178 out of 522 people		
	aphy (7.2013): Health management 2013 information)			
Remarks		Those who underwent precise measurement at JAEA and National Institute of Radiological Sciences →Precise measurement of thyroid dose • For those who registered 20mSv+ in full-body scan	Those who received the scan at Onahama immediately after the accident Corrected full-body I-131 measurement →Tends to result in overestimation (Approx. 3 times the detector of the same type)	

\*Corrected assessment of I-131 (Iodine 131): For samples who did not have the short half-life I-131 detected due to delay in internal exposure measurement, their iodine dose was calculated based on the ratio between ambient iodine and cesium and the detectable limit of iodine. This approach produces conservative assessment, which tends to be overestimation.



## **TEPCO's own dose calculation under the long-term health management program**



Target personnel for FY2012	TEPCO employees	Contractor employees
①Effective dose (50~Under 100mSv)	501	522
②Thyroid equivalent dose (100mSv or above)	975	887
Those who are both ① and ② (re-posted)	417	266

• Effective dose data is aggregated as appropriate,

with information sent to those who have become newly applicable.

• TEPCO introduced neck ultrasound based on thyroid equivalent dose in August 2012.



• Dose data is aggregated with information sent to those who have become newly applicable half-yearly in consideration for those workers who become applicable halfway through the year.

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①Effective dose (50~Under 100mSv)	534	600
②Thyroid equivalent dose (100mSv or above)	976	996
Those who are both ① and ② (re-posted)	436	268

