Health Sciences Council 10th Subcommittee for Environmental Health and Water Supply April 19, 2011 Document 2

The Survey Results of Radioactive Materials in Tap Water

1. The status of the surveys conducted on radioactive materials in tap water

Surveys on radioactive materials in tap water are currently implemented by the Government's Nuclear Emergency Response Headquarters, the Ministry of Education, Culture, Sports, Science and Technology (MEXT), local governments, and water supply utilities.

- (1) Surveys conducted by the Government's Nuclear Emergency Response Headquarters Beginning on 16 March, 2011, measurements are conducted daily on tap water of water supply businesses located in the whole areas of Fukushima prefecture. The results of the surveys are publicly announced by the Ministry of Health, Labour, and Welfare (MHLW).
- (2) Surveys conducted by MEXT Beginning on 18 March, 2011, measurements are conducted daily on tap water at one point in each prefecture. The results of the surveys are publicly announced by MEXT.
- (3) Surveys conducted by the local governments and the water supply utilities

 Measurements on tap water of water supply businesses are conducted by the local
 governments and the water supply utilities in Fukushima prefecture and the neighboring
 regions. The results of the surveys are publicly announced by the local governments
 and the water supply utilities, respectively.

2. The status of the restriction on the intake of tap water and public announcement on it, as requested by MHLW

Following the accidents at the Fukushima No. 1 Nuclear Power Plant, the water supply utilities that the restriction on intake of tap water (applicable also to infants) and public announcement on it were requested by MHLW, are shown in Table 1.

Of all the water supply utilities, the intake restriction and public announcement were requested only at one small-scale water supply utility in Fukushima prefecture by MHLW, as the level of radioactive iodine exceeded 300 Bq/kg. (This intake restriction and public announcement on it were cancelled on 1 April.)

The restriction on infants' intake of tap water and public announcement on it were requested to 20 water supply utilities in a total of 5 prefectures (Fukushima, Ibaraki, Chiba, Tokyo, and Tochigi), as the level of radioactive iodine exceeded 100 Bq/kg. (The restriction on the infants' intake is being imposed at only one utility at present.) There are no restriction on the intake of tap water and public announcement requested in other prefectures (as of 18 April).

No water supply utilities have been requested the restriction on intake of tap water and public announcement on it because of the excess of index value for radioactive cesium (200Bq/kg).

3. The survey results of radioactive materials in tap water

(1) The results of MEXT's surveys on radioactive materials in tap water The results of MEXT's surveys on radioactive materials in tap water are shown in Figure 1 and Table 2. Radioactive iodine and radioactive cesium were detected in 14 prefectures, and these materials have not been detected in the other prefectures.

The peak of radioactive iodine concentration at each measuring point was observed at slightly different time, which was from 18 to 29 March. From the end of March, the concentration at many points started to show decreasing trend, and only traces of radioactive concentration were detected on 11 April.

The concentration level of radioactive cesium, compared with radioactive iodine, is generally low; a small amount of radioactive materials was detected as of 11 April.

(2) The results of surveys conducted at the water supply utilities for which intake restriction was imposed

The survey results of radioactive materials in tap water conducted by water supply utilities for which intake restriction was imposed are shown in Figure 2 and Table 3.

The peak concentration of radioactive iodine was observed in tap water at each measuring point from 17 to 24 March. The concentration levels declined starting in the end of March. As of 11 April, no radioactive iodine was detected at most of the measuring points.

The concentration level of radioactive cesium, compared with radioactive iodine, is generally low, although it has been detected temporarily in parts of municipalities in Fukushima prefecture. As of 11 April, at many points, no radioactive cesium was detected.

(Reference 1)The restriction on intake of tap water, public announcement, and cancellation

O The requests for the restrictions on intake of tap water and public announcement by the MHLW

In principle, the MHLW requests the restriction of intake and public announcement to water supply utilities whose average inspection results of the radioactive materials in tap water in the last three days exceeds the index levels. However, in case a single inspection outcome considerably exceeds the index levels, the MHLW requests the restriction on intake and public announcement to the said water supply utility.

O Recommended measure for the cancellation of intake restrictions by water supply utilities Water supply utilities restricting the intake of tap water are recommended to lift their restrictions in case the average inspection results of radioactive materials in tap water in the last immediate 3 days falls below the index levels and that the outcomes have been on the decrease.

*Fundamentally, the index levels on intake restrictions are set up taking into account the long-term effects of radioactive materials, and thus the assessment should be conducted in comparison with the long-term intake. On the other hand, according to the inspection results obtained so far, the concentration of radioactive materials in tap water fluctuates in time. Therefore, it is difficult to forecast fluctuation in the long-term. In the light of the above, the MHLW has decided to conduct an assessment with acquired data over three days for the time being, considering that the prompt judgment to a certain extent is required for the commencement and cancellation of the restriction of the intake.

(Reference 2) Current Indexes

1) Index for restrictions on the intake of food and beverages set by the Nuclear Safety Commission

Radioactive iodine in drinking water: 300 Bq/kg;

Radioactive cesium in drinking water: 200 Bq/kg

2) "Measures for infants' ingestion of tap water" (No. 0321-1 issued by Water Supply Division, Health Service Bureau on March 21, 2011)

O MHLW notified the heads of departments in charge of water supply administration in each prefectural government and water supply utilities, to refrain from having infants intake tap water, including giving them formula milk dissolved by tap water, in case the level of radioactive iodine in tap water exceeds 100 Bq/kg.

Table1. The status of the requests for the restriction on tap water intake and public announcement

<Timeline>

Infants			
Date	Prefecture	Water supply utility, etc.	Notes
3/21	Fukushima	Iitate-mura (village) Small-Scale Water Supply Utility (Iitate-mura (village))	
		Date-shi (city)/Tsukitate Small-Scale Water Supply Utility (Date-shi (city))	Cancelled on 3/26
		Kawamata-machi (town) Water Supply Utility (Kawamata-machi (town))	Cancelled on 3/25
3/22	Fukushima	Koriyama-shi (city) Water Supply Utility (Koriyama-shi (city))	Cancelled on 3/25
		Minamisoma-shi (city) Water Supply Utility (Minamisoma-shi (city))	Cancelled on 3/30
		Tamura-shi (city) Water Supply Utility (Tamura-shi (city))	Cancelled on 3/23
	Fukushima	Iwaki-shi (city) Water Supply Utility (Iwaki-shi (city))	Cancelled on 3/31
	Ibaraki	Tokai-mura (village) Water Supply Utility (Tokai-mura (village))	Cancelled on 3/26
	Toaraki	Suifu district Hokubu (northern area) Small-Scale Water Supply Utility (Hitachi-ota-shi (city))	Cancelled on 3/26
3/23	Chiba	Chiba Prefecture Water Supply Utility (Chiba Nogiku-no-sato Water Treatment Plant and Kuriyama Water Treatment Plant)	Cancelled on 3/25
		Kitachiba-Koiki Bulk Water Supply Utility	Cancelled on 3/26
	Tokyo	Tokyo Water Supply Utility (23 wards and 5 cities)	Cancelled on 3/24
		Kita-Ibaraki-shi (city) Water Supply Utility (Kita-Ibaraki-shi (city))	Cancelled on 3/27
3/24	Ibaraki	Hitachi-shi (city) Water Supply Utility (Hitachi-shi (city))	Cancelled on 3/26
		Kasama-shi (city) Water Supply Utility (Kasama-shi (city))	Cancelled on 3/27
	Tochigi	Utsunomiya-shi (city) Water Supply Utility (Utsunomiya-shi (city))	Cancelled on 3/25
3/25	Tochigi	Nogi-machi (town) Water Supply Utility (Nogi-machi (town))	Cancelled on 3/26
3/23	Ibaraki	Ibaraki-Ken-Nan Water Supply Utility (Toride-shi (city))	Cancelled on 3/26
	Toaraki	Koga-shi (city) Water Supply Utility (Koga-shi (city))	Cancelled on 3/25
	Fukushima	Tamura-shi (city) Water Supply Utility (Tamura-shi (city))	Cancelled on 3/28
3/26	Chiba	Chiba Prefecture Water Supply Utility (Kashiwai Water Treatment Plant (East side facility))	Cancelled on 3/27
	Ciliua	Inba-gun (county) Bulk Water Supply Utility	Cancelled on 3/27
3/27	Fukushima	Date-shi (city)/Tsukitate Small-Scale Water Supply Utility (Date-shi (city))	Cancelled on 4/1

General public			
Date	Prefecture	Water supply utility, etc.	Notes
3/21	Fukushima	Iitate-mura (village) Small-Scale Water Supply Utility (Iitate-mura (village))	Cancelled on 4/1

X"Infants" refer to informing that infants refrain from intaking tap water (including giving infants formula milk dissolved by tap water, etc.); "General public" means informing residents to refrain from drinking tap water. In addition, "Start" and "Cancel" refer to the "beginning" and "cancellation" of the public announcement of relavant information (public relations), respectively.

*The table was created based on information confirmed by the MHLW by the time of issuance of this announcement.

XIn Iitate-mura (village), Fukushima prefecture, the restriction on tap water intake by infants and public announcement continue according to the judgment by the village, although the inspection results of radioactive materials are below the index values for infants.

<By prefecture>

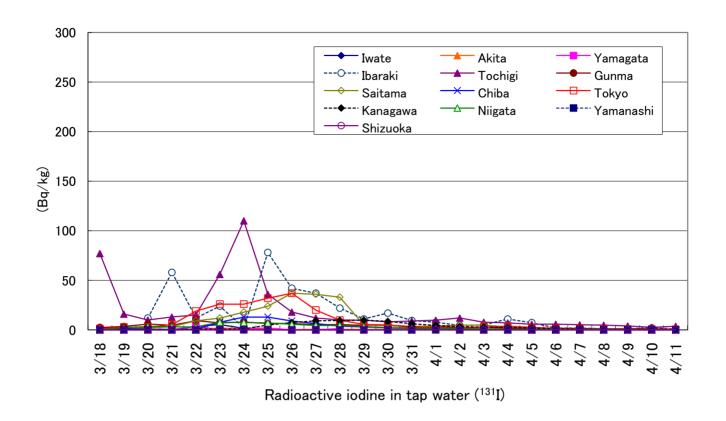
< By prefec		Infa	ants	Genera	l public
	Water supply utility, etc.	Start	Cancel	Start	Cancel
	litate-mura (village) Small-Scale Water Supply Utility (litate-mura (village))	3/21		3/21	4/1
	Doto ski (situ)/Tsukitoto Small Saala Watan Sumply Htility (Data ski (situ))	3/22	3/26		
	Date-shi (city)/Tsukitate Small-Scale Water Supply Utility (Date-shi (city))	3/27	4/1		
	Kawamata-machi (town) Water Supply Utility (Kawamata-machi (town))	3/22	3/25		
Fukushima	Koriyama-shi (city) Water Supply Utility (Koriyama-shi (city))	3/22	3/25		
	Minamisoma-shi (city) Water Supply Utility (Minamisoma-shi (city))	3/22	3/30		
	Tamura-shi (city) Water Supply Utility (Tamura-shi (city))	3/22	3/23		
	Tamura-sin (city) water supply offitty (Tamura-sin (city))	3/26	3/28		
	Iwaki-shi (city) Water Supply Utility (Iwaki-shi (city))	3/23	3/31		
	Tokai-mura (village) Water Supply Utility (Tokai-mura (village))	3/23	3/26		
	Suifu district Hokubu (northern area) Small-Scale Water Supply Utility (Hitachi-ota-shi (city))	3/23	3/26		
	Kita-Ibaraki-shi (city) Water Supply Utility (Kita-Ibaraki-shi (city))	3/24	3/27		
Ibaraki	Hitachi-shi (city) Water Supply Utility (Hitachi-shi (city))	3/24	3/26		
	Kasama-shi (city) Water Supply Utility (Kasama-shi (city))	3/24	3/27		
	Koga-shi (city) Water Supply Utility (Koga-shi (city))	3/25	3/25		
	Ibaraki-Ken-Nan Water Supply Utility (Toride-shi (city))	3/25	3/26		
	Chiba Prefecture Water Supply Utility (Chiba Nogiku-no-sato Water Treatment Plant and Kuriyama Water Treatment Plant)	3/23	3/25		
Chiba	(Kashiwai Water Treatment Plant (East side facility))	3/26	3/27		
	Kitachiba-Koiki Bulk Water Supply Utility	3/23	3/26		
	Inba-gun (county) Bulk Water Supply Utility	3/26	3/27		
Tokyo	Tokyo Water Supply Utility (23 wards and 5 cities)	3/23	3/24		
Tochici	Utsunomiya-shi (city) Water Supply Utility (Utsunomiya-shi (city))	3/25	3/25		
Tochigi	Nogi-machi (town) Water Supply Utility (Nogi-machi (town))	3/25	3/26		

*X"Infants" refer to informing that infants refrain from intaking tap water (including giving infants formula milk dissolved by tap water, etc.); "General public" means informing residents to refrain from drinking tap water. In addition, "Start" and "Cancel" refer to the "beginning" and "cancellation" of the public announcement of relavant information (public relations), respectively.

*The table was created based on information confirmed by the MHLW by the time of issuance of this announcement.

XIn Iitate-mura (village), Fukushima prefecture, the restriction on tap water intake by infants and public announcement continue according to the judgment by the village, although the inspection results of radioactive materials are below the index values for infants.

Figure 1. Results of surveys on radioactive materials in tap water conducted by Ministry of Education, Culture, Sport, Science and Technology



100 Akita Yamagata **I**wate 90 Tochigi · Ibaraki Gunma Saitama Chiba Tokyo 80 ⁻· Kanagawa Niigata - Yamanashi Shizuoka 70 60 (Bq/kg) 50 40 30 20 10 Radioactive cesium in tap water (132Cs+137Cs)

※In these figures, the concentration is shown as zero for descriptive purposes of drawing figures, in case of ND (Not Detectable). (The lower detection limit varies for each measurement, and ND does not mean that the detected concentration level is zero.)

XOut of prefectual governments conducting surveys, only prefectures, in which radioactive iodine and radioactive cesium were detected, are shown.

Table 2. Results of surveys on radioactive materials in tap water conducted by Ministry of Education, Culture, Sport, Science and Technology $^{\times}$

Radioactive iodine 131

Sampling Date	Iwate	Akita	Yamagata	Ibaraki	Tochigi	Gunma	Saitama	Chiba	Tokvo	Kanagawa	Niigata	Yamanashi	Shizuoka
3/18	ND	ND	ND	- IDUI UIT	77	2.5	0.62	0.79	1.5		0.27	ND	OTHEGONA
3/19	ND	ND	ND	_	16	3.4	0.93		2.9	0.43	2.1	ND	ND
3/20	ND	ND	ND	12	10	5.9	2	0.68	2.9	0.46	3.6	0.24	ND
3/21	ND	ND	ND	58	13	4.7	3.4	0.59	5.3		3.2	ND	ND
3/22	3.4	0.76	3.9	12	15	9.3	9.2	0.48	19	0.93	3	ND	0.14
3/23	5.3	2	ND	24	56	7	12	7.8	26	0.75	7.8	ND	ND
3/24	1.5	1.2	1.5	2.2	110	8	18	13	26	1	7.5	0.22	ND
3/25	0.54	0.83	1.9	78	36	6.4	24	13	32	4.9	7.1	ND	ND
3/26	ND	0.42	ND	42	18	6.3	37	9	37	7.4	5.7	ND	ND
3/27	0.34	0.5	ND	37	12	5.4	36	6.4	20	9.2	4.6	ND	ND
3/28	ND	0.77	1.4	22	10	5.4	33	3.8	9.8	9.6	4.5	ND	ND
3/29	ND	0.57	_	11	9.9	4.6	5.3	3	5.6	9.9	3.4	ND	ND
3/30	0.36	0.35	_	17	8.1	4.7	4.3	2	5.1	8.6	2.3	ND	ND
3/31	0.31	0.42	-	9.5	9	2.6	3.7	1.5	3.4	6.3	1.8	ND	ND
4/1	0.33	0.2	_	7.7	9.8	3.4	3.9	1.3	2.1	4.5	1.5	0.11	ND
4/2	ND	ND	-	4.6	12	2.2	4.9	0.97	2	3.3	1.4	ND	ND
4/3	ND	ND	_	5.1	7.8	3	4.8	0.74	2.9	2.7	1.1	ND	ND
4/4	0.23	ND	_	11	7.1	1.8	3	0.42	3.8	2.3	1	ND	ND
4/5	ND	ND	ND	7.3	5.7	1.2	2.2	0.41	2.6	1.9	0.77	ND	ND
4/6	ND	ND	ND	1.9	5.8	1.6	1.3	0.35	1.63		0.58	ND	ND
4/7	0.15	ND	ND	1.9	5.2	0.91	1	0.29	1.4	1.1	0.53	ND	ND
4/8	ND	ND	ND	1.2	4.8	1	0.7	ND	0.89	0.79	0.53	ND	ND
4/9	ND	ND	ND	1.3	4	0.96	0.79	ND	1	0.54	0.32	ND	ND
4/10	ND	ND	ND	2.1	2.6	0.93		ND	0.71	0.65	0.33		ND
4/11	ND	ND	ND	0.91	3.7	0.7	0.41	ND	0.6	ND	0.31	ND	ND

Radioactive cesium 134 + 137

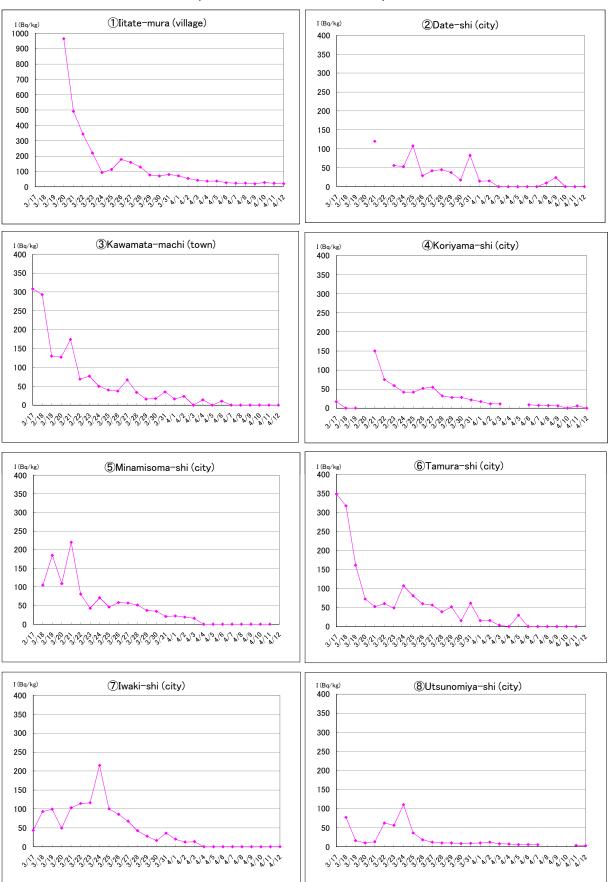
Sampling Date	Iwate	Akita	Yamagata	Ibaraki	Tochigi	Gunma	Saitama	Chiba	Tokyo	Kanagawa	Niigata	Yamanashi	Shizuoka
3/18	ND	ND	ND	_	1.6	0.22	ND	ND	ND	ND	ND	ND	ND
3/19	ND	ND	ND	-	2.6	ND	ND	ND	0.21	ND	ND	ND	ND
3/20	ND	ND	ND	0.48	2.8	1.2	ND	ND	ND	ND	ND	ND	ND
3/21	ND	ND	ND	18	6	0.72	ND	ND	0.22	ND	ND	ND	ND
3/22	ND	ND	ND	4.8	5.3	0.37	ND	ND	0.31	ND	ND	ND	ND
3/23	0.13	ND	ND	3.3	9.3	0.54	0.32	ND	1.5	ND	ND	ND	ND
3/24	ND	ND	0.43	1.1	9.3	0.55	0.82	ND	2.4	ND	ND	ND	ND
3/25	ND	ND	ND	ND	7.6	0.56	1	0.27	2.1	ND	ND	ND	ND
3/26	ND	ND	ND	ND	6	0.47	0.79	0.32	1.8	ND	ND	ND	ND
3/27	ND	ND	ND	0.91	5.2	0.44	1	0.25	1.2	ND	ND	ND	ND
3/28	ND	ND	ND	ND	4.9	0.5	0.79	0.32	0.82	ND	ND	ND	ND
3/29	ND	ND	-	2.5	5.4	0.57	0.35	0.26	0.51	ND	ND	ND	ND
3/30	ND	ND	-	ND	3.4	0.72	0.46	0.45	0.9	ND	ND	ND	ND
3/31	ND	ND	-	ND	3.9	0.46	0.76	0.64	0.88	ND	ND	ND	ND
4/1	ND	ND	-	ND	4.3	0.67	0.41	0.43	0.45	ND	ND	ND	ND
4/2	ND	ND	-	ND	6.7	0.31	0.49	0.53	0.45	ND	ND	ND	ND
4/3	ND	ND	_	ND	5.8	0.24	1.1	0.49	0.5	ND	ND	ND	ND
4/4	ND	ND	_	ND	4.8	0.19	0.68	0.5	0.59	ND	ND	ND	ND
4/5	ND	ND	ND	ND	4.5	ND	0.68	0.43	0.64	ND	ND	ND	ND
4/6	ND	ND	ND	ND	4.0	1.04	0.42	0.26	0.5	ND	ND	ND	ND
4/7	ND	ND	ND	0.76	4	ND	0.48	0.53	0.6	ND	ND	ND	ND
4/8	ND	ND	ND	ND	4	ND	0.51	ND	0.48	ND	ND	ND	ND
4/9	ND	ND	ND	ND	3.7	ND	0.49	0.18	0.26	ND	ND	ND	ND
4/10	ND	ND	ND	ND	1.3	0.13	0.33	0.24	ND	ND	ND	ND	ND
4/11	ND	ND	ND	ND	ND	0.35	0.2	ND	0.27	ND	ND	ND	ND

ND: Less than the lower limit of detection.

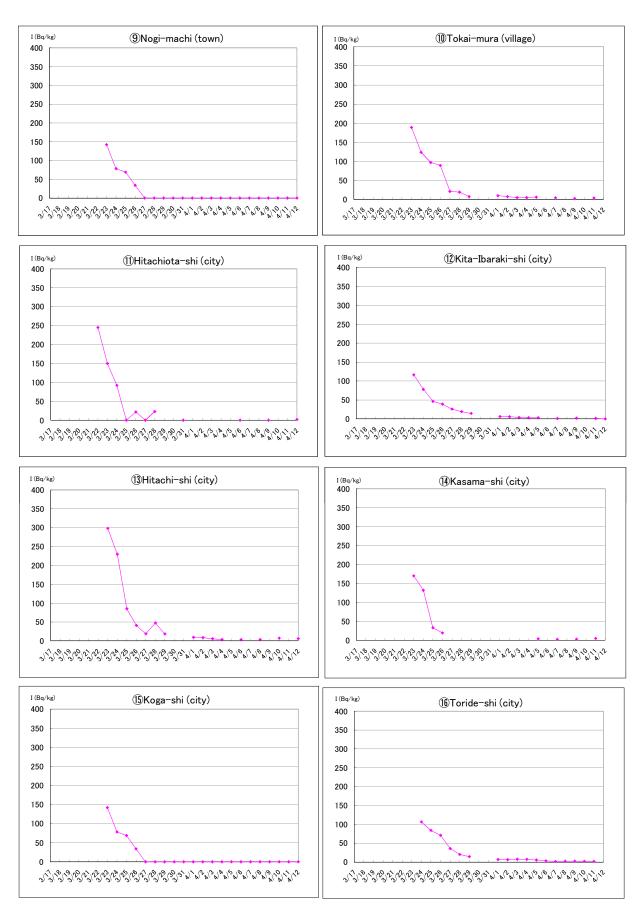
^{-:} Measurements were not conducted due to the maintenance of measuring instrument.

XOut of prefectual governments conducting surveys, only prefectures, in which radioactive iodine and radioactive cesium were detected, are shown.

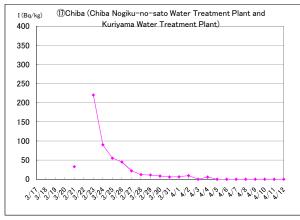
Figure 2. Results of surveys on radioactive materials in tap water conducted by water supply utilities that imposed restrictrion on intake of tap water

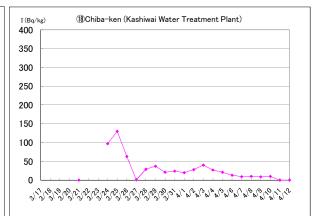


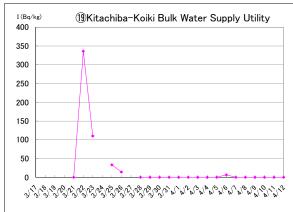
XIIn these figures, the concentration is show as zero for descriptive purposes of drawing figures, in case of ND (Not Detectable). (The lower detection limit varies for each measurement, and ND does not mean that the detected concentration level is zero.)

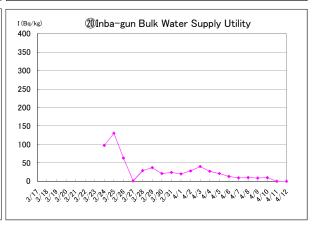


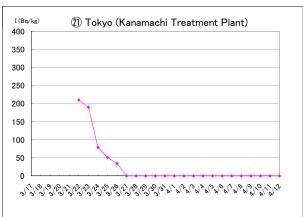
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XIn these figures, the concentration is show as zero for descriptive purposes of drawing figures, in case of ND (Not Detectable). (The lower detection limit varies for each measurement, and ND does not mean that the detected concentration level is zero.)

Table 3. Results of surveys on radioactive materials in tap water conducted by water supply utilities that imposed restriction on intake of tap water

	1)Iitate-r	nura (villag	ge)	②Date-s	hi (city)		3Kawama	ata-mach	i (town)	④Koriyama−shi (city)		
Date	¹³¹ I	¹³⁴ Cs	¹³⁷ Cs	¹³¹ I	¹³⁴ Cs	¹³⁷ Cs	¹³¹ I	134Cs	¹³⁷ Cs	¹³¹ I	¹³⁴ Cs	137 Cs
	Bq/kg	Bq/kg	Bq/kg	Bq/kg	Bq/kg	Bq/kg	Bq/kg	Bq/kg	Bq/kg	Bq/kg	Bq/kg	Bq/kg
2011/3/17							308	ND	ND	17	ND	ND
2011/3/18							293	15	ND	ND	ND	ND
2011/3/19							130	ND	ND	ND	ND	ND
2011/3/20	965	ND	ND				127	ND	ND			
2011/3/21	492	16	15	120	8	ND	174	ND	6	150	ND	ND
2011/3/22	344	ND	ND				69	ND	ND	75	ND	ND
2011/3/23	220	ND	ND	56	ND	ND	77	ND	ND	59	ND	ND
2011/3/24	94	ND	ND	53	ND	ND	50	ND	ND	42	ND	4
2011/3/25	113	ND	ND	108	ND	ND	40	ND	ND	42	ND	ND
2011/3/26	179	ND	ND	29	ND	ND	37	ND	14	52	ND	ND
2011/3/27	159	ND	ND	42	ND	ND	67	ND	ND	55	ND	ND
2011/3/28	129	ND	8	45	ND	ND	34	ND	ND	32	ND	4
2011/3/29	77	ND	ND	38	17	15	16	ND	ND	28	ND	ND
2011/3/30	71	ND	ND	18	ND	ND	17	ND	ND	28	ND	ND
2011/3/31	81	ND	12	83	69	53	35	ND	ND	22	ND	ND
2011/4/1	72	ND	ND	15	ND	ND	16	ND	ND	17	ND	ND
2011/4/2	55	13	8	15	ND	ND	23	ND	ND	11	ND	ND
2011/4/3	43	12	5	ND	ND	ND	ND	ND	ND	11	ND	ND
2011/4/4	37	ND	ND	ND	ND	ND	14	ND	13			
2011/4/5	38	9	ND	ND	ND	ND	ND	ND	ND			
2011/4/6	27	ND	ND	ND	ND	ND	11	ND	ND	9	ND	ND
2011/4/7	24	ND	11	ND	ND	ND	ND	ND	ND	7	ND	ND
2011/4/8	25	ND	ND	10	ND	ND	ND	ND	ND	7	ND	ND
2011/4/9	20	7	7	24	31	38	ND	ND	ND	6	ND	ND
2011/4/10	28	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2011/4/11	23	ND	ND	ND	ND	ND	ND	ND	ND	6	ND	ND
2011/4/12	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Remarks	From a number of measurement						From a number of measurement points, the largest value is shown.			From a number of measurement points, the largest value is shown.		

	(5)Minami	soma-shi	(city)	6 Tamura	-shi (city))	⑦I waki−s	hi (city)		8 Utsuno	miya-shi (city)
Date	¹³¹ I	¹³⁴ Cs	¹³⁷ Cs	¹³¹ I	¹³⁴ Cs	¹³⁷ Cs	¹³¹ I	¹³⁴ Cs	¹³⁷ Cs	¹³¹ I	¹³⁴ Cs	¹³⁷ Cs
	Bq/kg	Bq/kg	Bq/kg	Bq/kg	Bq/kg	Bq/kg	Bq/kg	Bq/kg	Bq/kg	Bq/kg	Bq/kg	Bq/kg
2011/3/17				348	ND	ND	43	ND	ND			
2011/3/18	105	ND	ND	317	27	30	93	ND	16	77		2
2011/3/19	185	ND	ND	161	ND	ND	99	ND	16	16		3
2011/3/20	109	12	ND	72	ND	ND	49	ND	ND	10		3
2011/3/21	220	ND	ND	52	6	ND	103	ND	5	13		6
2011/3/22	81	ND	ND	60	ND	ND	114	ND	ND	62		5
2011/3/23	43	ND	ND	49	ND	ND	116	ND	ND	56		9
2011/3/24	71	41	43	107	ND	ND	215	ND	ND	110		9
2011/3/25	46	ND	ND	81	ND	ND	100	ND	ND	36		8
2011/3/26	58	ND	ND	60	ND	ND	86	ND	ND	18		6
2011/3/27	57	ND	ND	56	ND	ND	68	ND	ND	12		5
2011/3/28	52	ND	ND	39	ND	ND	42	ND	ND	10		5
2011/3/29	37	ND	ND	52	ND	ND	28	ND	ND	10		5
2011/3/30	35	ND	ND	15	ND	ND	17	ND	ND	8	ND	5
2011/3/31	21	ND	ND	61	60	81	36	ND	ND	9		4
2011/4/1	22	ND	ND	15	ND	ND	20	ND	ND	10		4
2011/4/2	19	ND	ND	16	ND	ND	12	ND	ND	12		7
2011/4/3	16	ND	ND	4	ND	ND	14	ND	ND	8		6
2011/4/4	ND	ND	ND	ND	ND	ND	ND	ND	ND	7		5
2011/4/5	ND	ND	ND	30	22	31	ND	ND	ND	6		5
2011/4/6	ND	ND	ND	ND	ND	ND	ND	ND	ND	6		4
2011/4/7	ND	ND	ND	ND	ND	ND	ND	ND	ND	5		4
2011/4/8	ND	ND	ND	ND	ND	ND	ND	ND	ND	5		4
2011/4/9	ND	ND	ND	ND	ND	ND	ND	ND	ND	4		4
2011/4/10	ND	ND	ND	ND	ND	ND	ND	ND	ND	3		1
2011/4/11	ND	ND	ND	ND	ND	ND	ND	ND	ND	4		ND
2011/4/12							ND	ND	ND	3		ND
Remarks							From a number of measurement			From a number of measurement		
. tomarito	points, the la	argest value	is snown.	points, the la	argest value	is snown.	points, the largest value is shown.			points, the largest value is shown.		

XAs for values of radioactive iodine, the cells with values exceeding 100 Bq/kg are colored and those exceeding 300 Bq/kg are in bold.

^{*}The blank space means that no mesurement was carried out. ND: Less than the lower limit of detection. (The lower detection limit varies for each measurement.)

^{*}The values are rounded off to the closest whole number.

	9Nogi-machi (town)			1 0Tokai−r	nura (villa	ge)	11)Hitachi	ota-shi (c	ity)	12Kita-ib	araki-shi (city)
Date	¹³¹ I	¹³⁴ Cs	¹³⁷ Cs	¹³¹ I	134Cs	137Cs	¹³¹ I	¹³⁴ Cs	¹³⁷ Cs	¹³¹ I	134Cs	¹³⁷ Cs
	Bq/kg	Bq/kg	Bq/kg	Bq/kg	Bq/kg	Bq/kg	Bq/kg	Bq/kg	Bq/kg	Bq/kg	Bq/kg	Bq/kg
2011/3/17												
2011/3/18												
2011/3/19												
2011/3/20												
2011/3/21												
2011/3/22							245		7			
2011/3/23	142	ND	ND	189		1	150		ND	116		7
2011/3/24	78	ND	ND	124		2	92		12	78		2
2011/3/25	69	ND	ND	97		ND	ND		ND	46		ND
2011/3/26	34	ND	ND	89		0	22		3	39		ND
2011/3/27	ND	ND	ND	21		ND	ND		ND	26		1
2011/3/28	ND	ND	ND	19		ND	23		ND	19		ND
2011/3/29	ND	ND	ND	7		ND				15		ND
2011/3/30	ND	ND	ND									
2011/3/31	ND	ND	ND				ND		<u>ND</u>			
2011/4/1	ND	ND	ND	10	ND	ND				6	ND	1
2011/4/2	ND	ND	ND	8	1	ND				6	ND	ND
2011/4/3	ND	ND	ND	5	ND	ND				4	ND	ND
2011/4/4	ND	ND	ND	5	ND	ND				3	ND	ND
2011/4/5	ND	ND	ND	6	ND	ND				3	ND	ND
2011/4/6	ND	ND	ND	_			ND		ND			
2011/4/7	ND	ND	ND	5	ND	ND				1	ND	ND
2011/4/8	ND	ND	ND	_						_		
2011/4/9	ND	ND	ND	3	ND	1	ND		ND	2	ND	ND
2011/4/10	ND	ND	ND									
2011/4/11	ND	ND	ND	4	ND	ND				1	ND	ND
2011/4/12	ND	ND	ND	_			2		ND	-		
Remarks				From a numl points, the la	per of measu argest value		From a number points, the la	ber of measu argest value			ber of measu argest value	

	13Hitachi	-shi (city)		14)Kasama	a-shi (city)	®Koga−s	shi (city)		16Toride-shi (city)		
Date	¹³¹ I	¹³⁴ Cs	¹³⁷ Cs	¹³¹ I	¹³⁴ Cs	¹³⁷ Cs	¹³¹ I	134 Cs	¹³⁷ Cs	¹³¹ I	¹³⁴ Cs	¹³⁷ Cs
	Bq/kg	Bq/kg	Bq/kg	Bq/kg	Bq/kg	Bq/kg	Bq/kg	Bq/kg	Bq/kg	Bq/kg	Bq/kg	Bq/kg
2011/3/17			•			•			•			•
2011/3/18												
2011/3/19												
2011/3/20												
2011/3/21												
2011/3/22												
2011/3/23	298		4	170		ND	142	ND	ND			
2011/3/24	230		3	132		ND	78	ND	ND	107		6
2011/3/25	85		2	33		ND	69	ND	ND	84		4
2011/3/26	41		4	20		ND	34	ND	ND	71		5
2011/3/27	19		2				ND	ND	ND	36		ND
2011/3/28	48		3				ND	ND	ND	20		3
2011/3/29	19		3				ND	ND	ND	14		2
2011/3/30							ND	ND	ND			
2011/3/31							ND	ND	ND			
2011/4/1	10	ND	ND				ND	ND	ND	7	1	1
2011/4/2	9	ND	1				ND	ND	ND	7	1	1
2011/4/3	6	1	1				ND	ND	ND	8	1	ND
2011/4/4	4	ND	ND				ND	ND	ND	7	ND	ND
2011/4/5				4	ND	ND	ND	ND	ND	6	ND	ND
2011/4/6	4	ND	ND				ND	ND	ND	3	ND	ND
2011/4/7				3	1	ND	ND	ND	ND	2	1	1
2011/4/8	4	1	ND				ND	ND	ND	2	ND	ND
2011/4/9				3	ND	ND	ND	ND	ND	2	ND	1
2011/4/10	7	ND	ND				ND	ND	ND	2	ND	ND
2011/4/11				5	ND	ND	ND	ND	ND	2	ND	1
2011/4/12	6	ND	ND				ND	ND	ND			
D	From a number of measurement points, the largest value is shown.			From a number of measurement points, the largest value is shown.							ber of measu argest value	

^{*}As for values of radioactive iodine, the cells with values exceeding 100 Bq/kg are colored and those exceeding 300 Bq/kg are in bold.

^{*}The blank space means that no mesurement was carried out. ND: Less than the lower limit of detection. (The lower detection limit varies for each measurement.)

^{*}The values are rounded off to the closest whole number.

	①Chiba (Chiba Treatment Plan Treatment Plan	t and Kuriyama	Water	18 Chiba (K Treatment			19Kitachiba Supply Utili	a-Koiki Bull ity		②Inba-gun Bulk Water Supply Utility		
Date	¹³¹ I	¹³⁴ Cs	¹³⁷ Cs	¹³¹ I	¹³⁴ Cs	¹³⁷ Cs	¹³¹ I	¹³⁴ Cs	¹³⁷ Cs	¹³¹ I	¹³⁴ Cs	¹³⁷ Cs
	Bq/kg	Bq/kg	Bq/kg	Bq/kg	Bq/kg	Bq/kg	Bq/kg	Bq/kg	Bq/kg	Bq/kg	Bq/kg	Bq/kg
2011/3/17												
2011/3/18												
2011/3/19												
2011/3/20												
2011/3/21	33	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2011/3/22							336	8	7			
2011/3/23	220						110	ND	ND			
2011/3/24	90			97						97		
2011/3/25	55	ND	ND	130	ND	ND	33	ND	ND	130	ND	ND
2011/3/26		ND	ND	63	ND	ND	14	ND	ND	63	ND	ND
2011/3/27	22	2	2	1	1	1				1	1	1
2011/3/28	12	ND	ND	29	ND	ND	ND	ND	ND	29	ND	ND
2011/3/29	11	ND	ND	37	ND	ND	ND	ND	ND	37	ND	ND
2011/3/30	8	ND	ND	21	ND	ND	ND	ND	ND	21	ND	ND
2011/3/31	6	ND	ND	24	ND	ND	ND	ND	ND	24	ND	ND
2011/4/1	6	ND	ND	20	ND	ND	ND	ND	ND	20	ND	ND
2011/4/2	10	ND	ND	28	ND	ND	ND	ND	ND	28	ND	ND
2011/4/3	ND	ND	ND	40	ND	ND	ND	ND	ND	40	ND	ND
2011/4/4	6	ND	ND	27	ND	ND	ND	ND	ND	27	ND	ND
2011/4/5	ND	ND	ND	21	ND	ND	ND	ND	ND	21	ND	ND
2011/4/6	ND	ND	ND	13	ND	ND	6	ND	ND	13	ND	ND
2011/4/7	ND	ND	ND	9	ND	ND	ND	ND	ND	9	ND	ND
2011/4/8	ND	ND	ND	10	ND	ND	ND	ND	ND	10	ND	ND
2011/4/9	ND	ND	ND	9	ND	ND	ND	ND	ND	9	ND	ND
2011/4/10		ND	ND	10	ND	ND	ND	ND	ND		ND	ND
2011/4/11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2011/4/12		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Remarks	Between the Chiba Nogikunosato Water Treatment Plant or the Kuriyama Water Treatment Plant, the higher value is shown.			The value of the Kashiwai Water Treatment Plant (East-side facility) is shown.						The value of the Kashiwai Water Treatment Plant (East-side facility) is shown.		

	21)Tokyo (Ka	namachi Treat	ment Plant)
Date	¹³¹ I	134Cs	¹³⁷ Cs
	Bq/kg	Bq/kg	Bq/kg
2011/3/17			
2011/3/18			
2011/3/19			
2011/3/20			
2011/3/21			
2011/3/22	210	ND	ND
2011/3/23	190	ND	ND
2011/3/24	79	ND	ND
2011/3/25	51	ND	ND
2011/3/26	34	ND	ND
2011/3/27	ND	ND	ND
2011/3/28	ND	ND	ND
2011/3/29	ND	ND	ND
2011/3/30	ND	ND	ND
2011/3/31	ND	ND	ND
2011/4/1	ND	ND	ND
2011/4/2	ND	ND	ND
2011/4/3	ND	ND	ND
2011/4/4	ND	ND	ND
2011/4/5	ND	ND	ND
2011/4/6	ND	ND	ND
2011/4/7	ND	ND	ND
2011/4/8	ND	ND	ND
2011/4/9	ND	ND	ND
2011/4/10	ND	ND	ND
2011/4/11	ND	ND	ND
2011/4/12	ND	ND	ND
Remarks		the Kanama Plant is show	

XAs for values of radioactive iodine, the cells with values exceeding 100 Bq/kg are colored and those exceeding 300 Bq/kg are in bold.
XThe blank space means that no mesurement was carried out. ND: Less than the lower limit of detection. (The lower detection limit varies for each measurement.)

XThe values are rounded off to the closest whole number.