

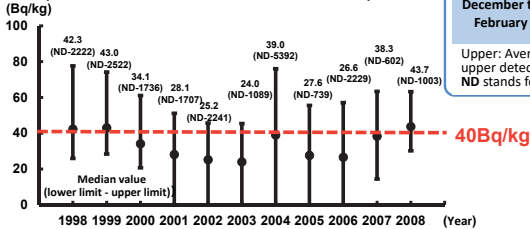
# Internal Exposure due to Cesium at the Time of the Chernobyl Accident



Seasonal changes in body concentrations of Cs-137 (Bq/kg) and number of examinees

	1998 to 2001	2002 to 2005	2006 to 2008
March to May	<b>34.6</b> (ND-2154.9) 10,993	<b>27.3</b> (ND-5392.2) 18,722	<b>32.0</b> (ND-1757.1) 9,284
June to August	<b>71.5</b> (ND-399.0) 265	<b>32.2</b> (ND-393.0) 268	<b>21.2</b> (ND-271.1) 451
September to November	<b>40.9</b> (ND-2521.7) 9,590	<b>33.5</b> (ND-1089.3) 8,999	<b>44.2</b> (ND-2229.3) 4,080
December to February	<b>33.5</b> (ND-1735.8) 8,971	<b>20.6</b> (ND-607.0) 6,603	<b>39.8</b> (ND-1454.3) 6,404

Body concentrations of Cs-137 measured with whole-body counters (Bq/kg)



Upper: Average (Bq/kg); Middle: Lower detection limit to upper detection limit; Lower: Number of examinees (people); ND stands for below the detection limit.

The annual internal exposure of 40 Bq/kg was detected in the Bryansk State from 1998 to 2008.

Bq/kg: Becquerels per kilogram

Source: Prepared based on Sekitani et al., Radiat Prot Dosimetry, 141, 1, 2010

Due to the Chernobyl accident in 1986, much larger amounts of radioactive materials were released compared with those released by the accident at Tokyo Electric Power Company (TEPCO)'s Fukushima Daiichi NPS. At first, the government of the former Soviet Union did not publicize the accident nor did it take any evacuation measures for residents around the nuclear facilities. In late April, when the accident occurred, pasturing had already started in the southern part of the former Soviet Union and cow milk was also contaminated with radionuclides.

As a result of the whole-body counter measurements of body concentrations of Cs-137, which were conducted for residents in the Bryansk State from 1998 to 2008, it was found that the median value of body concentrations of Cs-137 had decreased within a range of 20 to 50 Bq/kg until 2003 but has been on a rise since 2004. This suggests that exposure to Cs-137 due to the Chernobyl accident has been continuing over years.

Included in this reference material on March 31, 2013

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