Data 1 Various Standards and Indices

Standard limit for mushrooms etc. (unit: Bq/kg)

Applicable items	Standard limit	Publication
Mushrooms and wild vegetables (general foodstuffs standard) ※1	100	April 2012

Current index values for mushroom logs, firewood, charcoal, pellets, etc.

Applicable items	Current index value	Publication
Mushroom logs and bed logs ※2	50	March 2012
Mushroom bed medium	200	March 2012
Firewood ※3	40	November 2011
Charcoal	280	November 2011
Wood pellets (white pellets, whole-tree pellets) ※4	40	November 2012
Wood pellets (bark pellets)	300	November 2012

※1 The upper limit for exposure dose from foods which include radioactive substances is set at 1mSv per year, and that is the basis for determining standard limit for radioactive cesium.

※2 Based on measurement results for radioactive cesium concentration in bed logs (per unit dry weight), mushroom bed medium (per unit dry weight) and sprouted shiitake mushrooms (per unit fresh weight) which have been affected by radioactive substances, a value deemed to be close to the upper limit for transfer factor was estimated statistically. As a result, the values of transfer factor are 2 for mushroom logs (bed logs), and 0.5 for mushroom bed medium (mushroom beds). By the formula below, the current index values for mushroom logs and bed logs were set at 50Bq/kg and 200Bq/kg for mushroom bed medium and mushroom beds.
Current index value = 100Bq/kg (new standard limit for general foodstuffs)/(transfer factor (2 for mushroom logs, 0.5 for mushroom bed medium)
References: Forestry Agency "Q&A on the Setting of Current Index Values for Mushroom Logs and Mushroom Bed Medium, etc.", 2012

※3 Demonstration experiments produced data that burning 1kg of firewood left 5g of ash, while burning 1kg of charcoal left 30g of ash, and approximately 90% of the radioactive cesium included in that firewood and charcoal remained in the ash. That means that the concentration of radioactive cesium per 1kg of ash is 182 times higher than that in 1kg of firewood, and 28 times higher than that in 1kg of charcoal.
Therefore, the index value for firewood was set at 40Bq/kg (8,000÷182 = 44≒40) and the index value for charcoal was set at 280Bq/kg (8,000÷28 = 286≒280), so that ash produced by burning such firewood and charcoal does not exceed the radioactive substance concentration of 8,000Bq/kg. That concentration allows landfill disposal at final disposal sites for general waste, without applying measures such as solidification in cement.

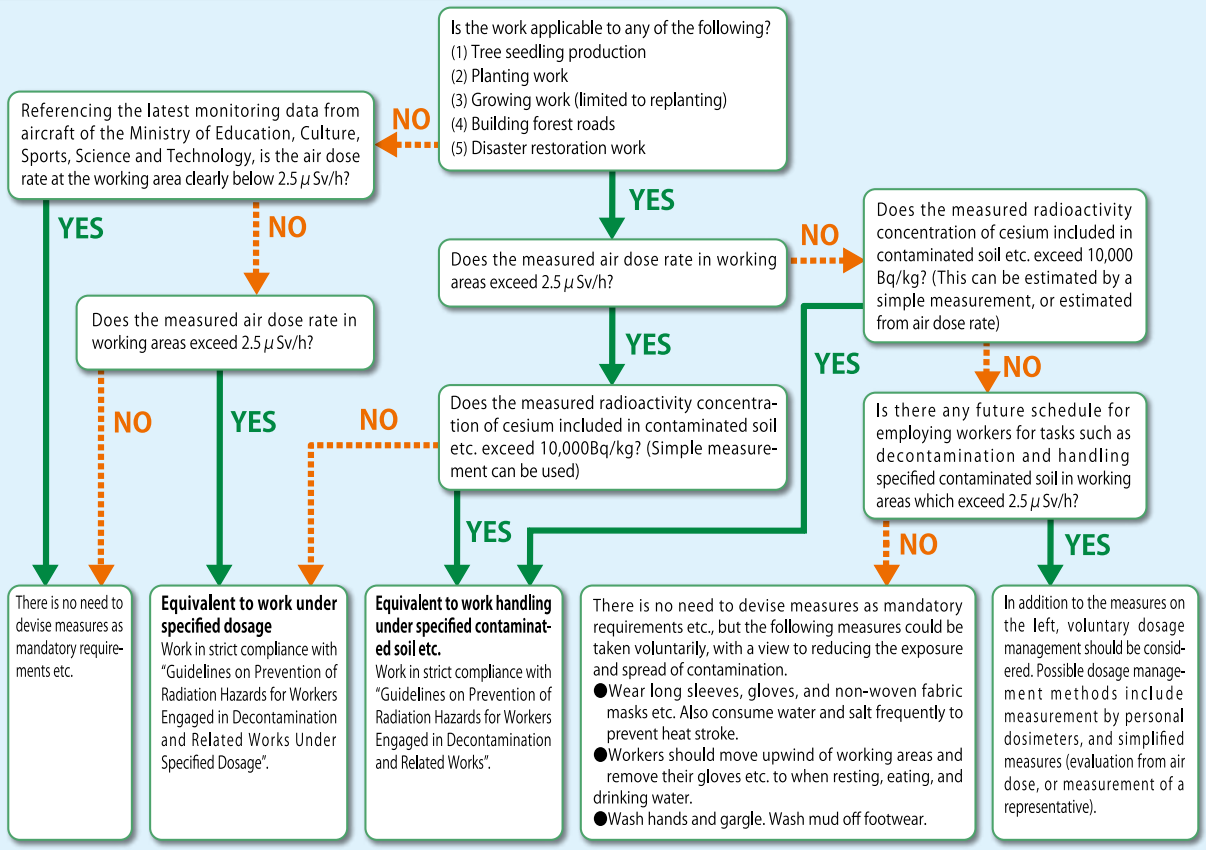
※4 For white pellets and whole-wood pellets, first the ratio (proportion of radioactive cesium condensation) between the radioactive cesium concentrations of the pellets before burning and the ash after burning was calculated. From that ratio, the upper limit of radioactive substance concentration in pellets was set so that the radioactive substance concentration of ash after burning would, with a 90% probability, not exceed the upper limit value of 8,000Bq/kg for disposal as general waste. The condensation ratio for that calculation was estimated at 210. On that basis, the near-term index value was calculated as follows: (8,000 Bq/kg÷210 times = 38.1Bq/kg≒ 40Bq/kg).
For bark pellets, the number of samples was smaller, so the maximum value of condensation ratio (25 times) was used, and the current index value was calculated as follows: (8,000Bq/kg÷25 times = 320Bq/kg≒300 Bq/kg).

Reference : Forestry Agency "Q&A on the Setting of Curremt Index Values for Wood Pellets, and Their Inspection Methods" 2012

Data 2 Working Safety Guide

Standards for work and radiation levels in forests in decontamination special areas etc.

Flow chart for working in decontamination special areas and intensive contamination survey areas



Reference : Forestry Agency "Flow Chart for Working in Decontamination Special Areas and Intensive Contamination Survey Areas"