

## Evaluation of Environment Radiation Monitoring Results

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Nuclear Safety Commission

Nuclear Safety Commission (NSC) evaluates the Environmental Monitoring Results published by Ministry of Education, Culture, Sports, Science and Technology (MEXT). The evaluation results based on the information published on July 11, 2011 are described as below:

### 1. Ambient radiation dose around Fukushima Dai-ichi NPP

- Observation of ambient radiation dose rate at 20km or more far from Fukushima Dai-ichi NPP found a relatively higher dose rate locally at several measuring points. It however does not reach the level that might affect people's health.
- A part of area at 20km or more far from Fukushima Dai-ichi NPP where the integrated dose is such high that annual cumulative dose after the onset of the accident would potentially exceed 20mSv was set to be "Deliberate Evacuation Area".
- High ambient dose spots not having regional extent as "Deliberate Evacuation Area", outside of "Deliberate Evacuation Area" and "Restricted Area", where ambient radiation dose rate is continually such high that annual cumulative dose after the onset of the accident would exceed 20mSv are set to be "Specific Spots Recommended for Evacuation".

We need to further watch a variation of dose rate carefully, considering other factors such as weather and wind direction.

### 2. Dust sampling in the air around Fukushima Dai-ichi NPP

- With regard to the measuring result of the dust sample collected at 20km or more far from Fukushima Dai-ichi NPP on July 8, I-131, Cs-134, Cs-137, I-132, Te-132 and others were lower than the detection limit.

We need to further watch variation of dust sampling data carefully, considering other factors such as weather and wind direction.

### 3. Airborne monitoring

- In terms of ambient radiation dose rate within 80km radius range of Fukushima Dai-ichi NPP, airborne monitoring, measured through May 31 to July 2 and adjusted to as of July 2, showed the similar tendency in geological distributions to the ground monitoring. After we receive a detail explanation of the monitoring result such as comparison with the previous one from MEXT, we will evaluate based on the

MEXT's explanation.

#### 4. Environmental sample around Fukushima Dai-ichi NPP

- Monitoring results collected between June 18 and July 10 were obtained on the land water (pond), the soil and fallout. The soil still showed relatively higher values; we further need continued measurement on the drinking water (tap water) and foods.
- With regard to the measuring results of seawater collected around Fukushima Dai-ichi NPP on July 9, Cs-137 was detected at some points. However, It was lower than the concentration limit (Note1).

For the food distribution restrictions, be aware of the information announced by the Ministry of Health, Labor and Welfare (MHLW) regarding relevant intervention.

We also need to continue environmental monitoring by related organizations under the arrangement by MEXT, considering various elements such as weather change.

#### 5. Environmental radioactivity level survey by prefecture

##### 1) Ambient radiation dose rate

Some prefectures showed a higher value compared with the average values obtained before the accident, however, it does not affect people's health.

##### 2) Drinking water (tap water)

- Be aware of the information related announced by the MHLW regarding relevant intervention.
- In Miyagi prefecture, reading of drinking water (tap water) monitoring was 0.3Bq/kg for radioactive cesium the same as on July 8, as far as the data on radioactivity level in drinking water by prefecture published by MEXT was evaluated. It was lower than the indices to limit ingestion of food and drink (Note2).

We consider that further monitoring is needed on a continuous basis.

#### (Note)

(Note 1) Limits of the radioactivity in the water outside the peripheral monitoring area boundary as specified by the law are  $4 \times 10^{-2} \text{Bq/cm}^3$  (40Bq/L) for I-131,  $6 \times 10^{-2} \text{Bq/cm}^3$  (60Bq/L) for Cs-134,  $9 \times 10^{-2} \text{Bq/cm}^3$  (90Bq/L) for Cs-137,  $3 \times 10^{-1} \text{Bq/cm}^3$  (300Bq/L) for Sr-89, and  $3 \times 10^{-1} \text{Bq/cm}^3$  (30Bq/L) for Sr-90.

(Note 2) Indices to limit ingestion of drinking water shown on "Regulatory Guide of Emergency Preparedness for Nuclear Facilities" are 300Bq/kg for radioactive iodine and 200Bq/kg for radioactive cesium.