



**Integrated Dose of External exposure**  
 (Estimation by SPEEDI between March 12 and April 5)

**Effective Dose of External exposure**  
 Date: March 12 6am - April 6 0am  
 Area: 92km × 92km  
 Nuclide: All nuclide  
 Age: Adult  
 (mSv)

1= 100	
2= 50	
3= 10	
4= 5	
5= 1	

This is provisional translation. Please refer to the official version in Japanese

April 10, 2011

To: Director-General of Nuclear Emergency Response Headquarters

From: Nuclear Safety Commission

In response to your request, dated April 10, 2011, for our technical advice in accordance with the fifth paragraph of article twenty of the Act on Special Measures Concerning Nuclear Emergency Preparedness, we hereby submit our technical advice as shown in the attachment, based on the same paragraph.

(Attachment)

## Provisions for a Deliberate Evacuation Area and an Evacuation-Prepared Area

### 1. Deliberate Evacuation Area

- (1) Relatively high cumulative doses have been recorded in some areas outside the 20 km radius of the Fukushima Dai-ichi Nuclear Power Station due to local contamination of the ground, affected by the weather and geographical conditions, by radioactive materials released from the power plants. The residents in these areas, if continue to stay there, would be exposed to higher levels of cumulative dose.
- (2) We hereby propose that a Deliberate Evacuation Area should be set up, such that it includes the beyond-20 km areas where annual cumulative dose after the onset of the accident would potentially reach 20 mSv, having regard to the band of reference levels for emergency exposure situations, 20 to 100 mSv per year, as recommended by the International Commission on Radiological Protection (ICRP) and the International Atomic Energy Agency (IAEA).
- (3) The residents in the Deliberate Evacuation Area are to be advised to evacuate.

### 2. Evacuation-Prepared Area

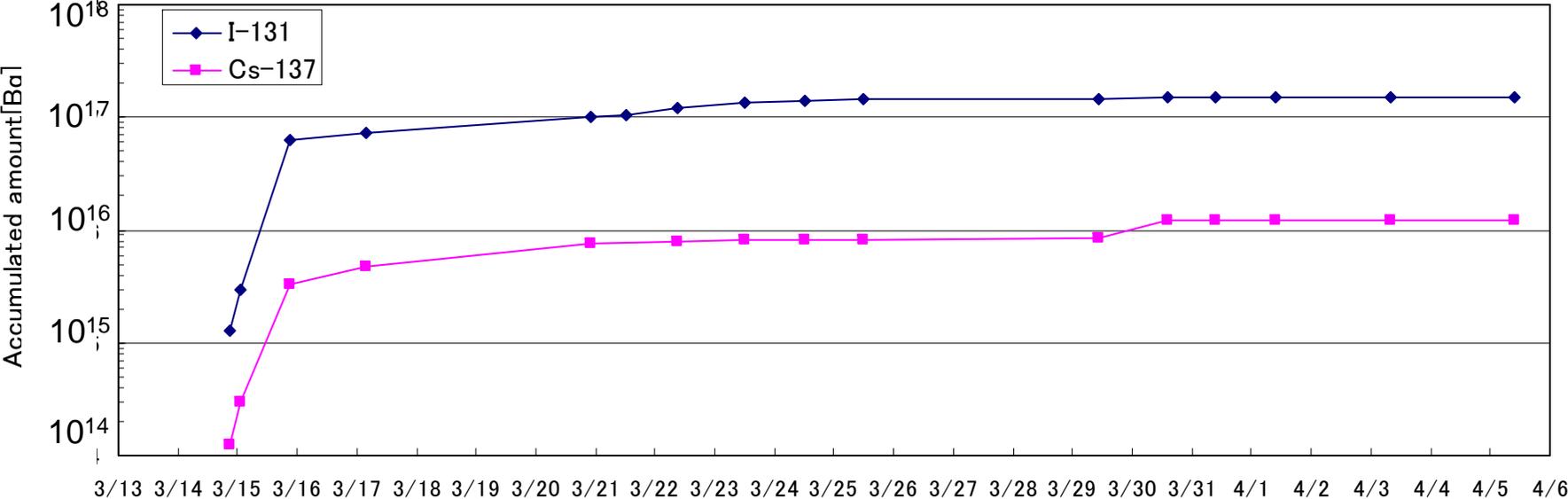
- (1) For the area between 20 and 30 km radius from the power station, where residents have been advised to shelter, possibilities still remain for emergency sheltering or evacuation since the plants have not yet reached stable conditions.
- (2) We hereby propose, taking into consideration of the plant statuses, the potential emergency needs, and the current circumstances of sheltering, that the subject area, excluding its parts to be included in the Deliberate Evacuation Area, should be designated an Evacuation-Prepared Area.

- (3) The residents in the Evacuation-Prepared Area need to be always prepared themselves for sheltering or evacuation in case of further emergency.
- (4) The residents in the Evacuation-Prepared Area are recommended to continue their voluntary evacuation. It is strongly recommended, in particular, that children, pregnant women, those who need nursing care and inpatients, avoid entering into this area.
- (5) Those who have to step into the Evacuation-Prepared Area for necessity, such as work requirements, should always be ready for sheltering or evacuation by themselves.

### 3. Future reconsideration of these areas

- (1) The provisions for these areas should be reconsidered when the radioactive materials released from the plants are judged to be basically under control.
- (2) Until then, in order to support such reconsideration and decisions, it is required to conduct intensive monitoring for these areas, and collect and analyze relevant data.

**Trial estimation of accumulated amount into the atmosphere of I-131 and Cs-137**



Note) Emission amount into the atmosphere accumulated from the occurrence of the accident to the specific day.  
Not the amount emitted within the day.

Press Release

(This is provisional translation. Please refer to the official version in Japanese)

Trial estimation of emission of radioactive materials (I-131, Cs-137) into the atmosphere from Fukushima Dai-ichi Nuclear Power Station

April 12, 2011

Nuclear Safety Commission

1. Summary

- (1) It is still difficult at this stage to precisely estimate the total amount of radioactive materials emitted into the environment from the Fukushima Dai-ichi Nuclear Power Station after the accident.
- (2) Under such a situation, Nuclear Safety Commission (NSC), in cooperation with the Japan Atomic Energy Agency (JAEA), has been tried to estimate a total amount of specific radioactive materials emitted into the atmosphere from Fukushima Dai-ichi Nuclear Power Station to figure out the perspective of the accident. We hereby report the result obtained at the present stage.

2. Trial estimation

- (1) We have been trying to estimate a total amount of specific radioactive materials emitted from the station by comparing monitoring data with outputs of atmospheric diffusion simulation.
- (2) As a result, a total amount released into the atmosphere from March 11 to April 5 is as follows:  $1.5 \times 10^{17}$  Bq for I-131 and  $1.2 \times 10^{16}$  Bq for Cs-137.

3. Further actions

We are trying to estimate and will report accordingly.

Note:

The amount of emission of I-131 and Cs-137 into the atmosphere is dominant to the dose influence assessment around the area of the station from the occurrence of the accident through the end of the accident. Radioactive materials emitted into the environment due to this accident include, other than the above, noble gases emitted into the air, radioactive materials into the ocean and those deposited on the land surface and into the soil within the premises.