Monitoring air dose rates in road/its adjacent area and vacant land lot from a series of surveys by car-borne radiation detectors and survey meters after the Fukushima Daiichi NPS accident

11 June, 2014
Secretariat of the Nuclear Regulation Authority
Japan
Monitoring areas

1. Road and its adjacent area
   Monitoring is conducted by radiation detectors equipped in vehicles.

2. Vacant land lot
   Vacant land lot is the flat area which has not been disturbed by human activities as shown in the following photos. Monitoring is conducted by survey meters.

radiation detector

survey meter
Air dose rates in “Road and its adjacent area”

3 months later
(4 to 13 June, 2011)

Air dose rates at 1m from the ground surface (µSv/h)

n=61,743

32 months later
(5 November to 12 December, 2013)

Air dose rates at 1m from the ground surface (µSv/h)

n=502,695

n: number of the measured areas of 100m x 100m mesh
Air dose rates in “Road and its adjacent area”
3 months later and 32 months later

(Air dose rates on 4 to 13 June, 2011)

(Air dose rates on 5 November to 12 December, 2013)

This dotted line is calculated with the condition that air dose rates decrease spontaneously. The slope is 0.57.
Air dose rates in “Vacant land lot”

3 months later
(4 June to 8 July, 2011)

n=2,181

Air dose rates at 1m from the ground surface (µSv/h)

32 months later
(28 October to 4 December, 2013)

n=6,554

Air dose rates at 1m from the ground surface (µSv/h)

n: number of the measured points
Air dose rates in “Vacant land lot”
3 months later and 32 months later

Same as described in Page 3.
Air dose rates in “Road and its adjacent area” and “Vacant land lot”

Air dose rates (Normalized on the date measured in 3 months after the accident)

Months after the accident

- 11 March 2011
- 6 months later
- 12 months later
- 18 months later
- 24 months later
- 30 months later
- 36 months later

◆ Vacant land lot
■ Road and its adjacent area

The dotted line is calculated with the condition that air dose rates decrease spontaneously.
Summary

1. Air dose rates in both “Road and its adjacent area” and “Vacant land lot” have decreased more rapidly than we expected considering the physical half-life of radionuclide in 32 months after the accident.

2. Air dose rates in “Road and its adjacent area” have decreased more rapidly than “Vacant land lot” in 32 months after the accident.