

Nuclide Analysis Results of Radioactive Materials in the Air at the Sites of Fukushima Nuclear Power Stations

Reference

(Data summarized on January 12)

| Place of Sampling             | West Gate of Fukushima Daiichi NPS |                      | MP-1 of Fukushima Daini (Reference) |                      |                             |                      | Density limit by the announcement of Reactor Regulation ( Bq/cm3 )<br>(Density limit in the air to which radiation workers breathe in the section 4 of the appendix 2) |
|-------------------------------|------------------------------------|----------------------|-------------------------------------|----------------------|-----------------------------|----------------------|--|
|                               | density of sample ( Bq/cm3)        | Scaling Factor ( / ) | density of sample ( Bq/cm3)         | Scaling Factor ( / ) | density of sample ( Bq/cm3) | Scaling Factor ( / ) |  |
| Time of Sampling              | 11-Jan-12<br>7:00 ~ 12:00          |                      | 11-Jan-12<br>9:46 ~ 9:56            |                      |                             |                      |  |
| Detected Nuclides (Half-life) | density of sample ( Bq/cm3)        | Scaling Factor ( / ) | density of sample ( Bq/cm3)         | Scaling Factor ( / ) | density of sample ( Bq/cm3) | Scaling Factor ( / ) |  |
| I-131 (about 8 days)          | ND                                 | -                    | ND                                  | -                    |                             |                      | 1E-03  |
| Cs-134 (about 2 years)        | 5.2E-07                            | 0.00                 | ND                                  | -                    |                             |                      | 2E-03  |
| Cs-137 (about 30 years)       | 2.1E-07                            | 0.00                 | ND                                  | -                    |                             |                      | 3E-03  |

\* The value of radioactivity density is the sum of the value of volatile nuclide's density and the value of particulate nuclide's density.

O.OE - O means  $O.O \times 10^{-O}$

Data of other nuclides are under examination.

\* In the case that two or more kinds of nuclides exist, sum of each scaling factor to the density limit is compared with 1.

\* "ND" means the sampled data is below measurable limit.

Detection limits of 3 nuclides on the West Gate of Fukushima Daiichi are as follows:

Volatile: I-131: approx.  $1E-7$ Bq/cm<sup>3</sup>, Cs-137: approx.  $3E-7$ Bq/cm<sup>3</sup> Particulate: I-131: approx.  $6E-8$ Bq/cm<sup>3</sup>

Detection limits of 3 nuclides on MP-1 of Fukushima Daini are as follows:

Volatile: I-131: approx.  $2E-6$ Bq/cm<sup>3</sup>, Cs-134: approx.  $3E-6$ Bq/cm<sup>3</sup>, Cs-137: approx.  $3E-6$ Bq/cm<sup>3</sup> Particulate: I-131: approx.  $9E-7$ Bq/cm<sup>3</sup>, Cs-134: approx.  $1E-6$ Bq/cm<sup>3</sup>, Cs-137: approx.  $1E-6$ Bq/cm<sup>3</sup>

## Result of the Pu analysis in the atmosphere at Fukushima Daiichi Nuclear Power Station

1. Sampling location: West gate, Fukushima Daiichi NPS
2. Institution conducting the analysis : Japan Chemical Analysis Center
3. Result of the analysis :

( Unit : Bq/cm<sup>3</sup> )

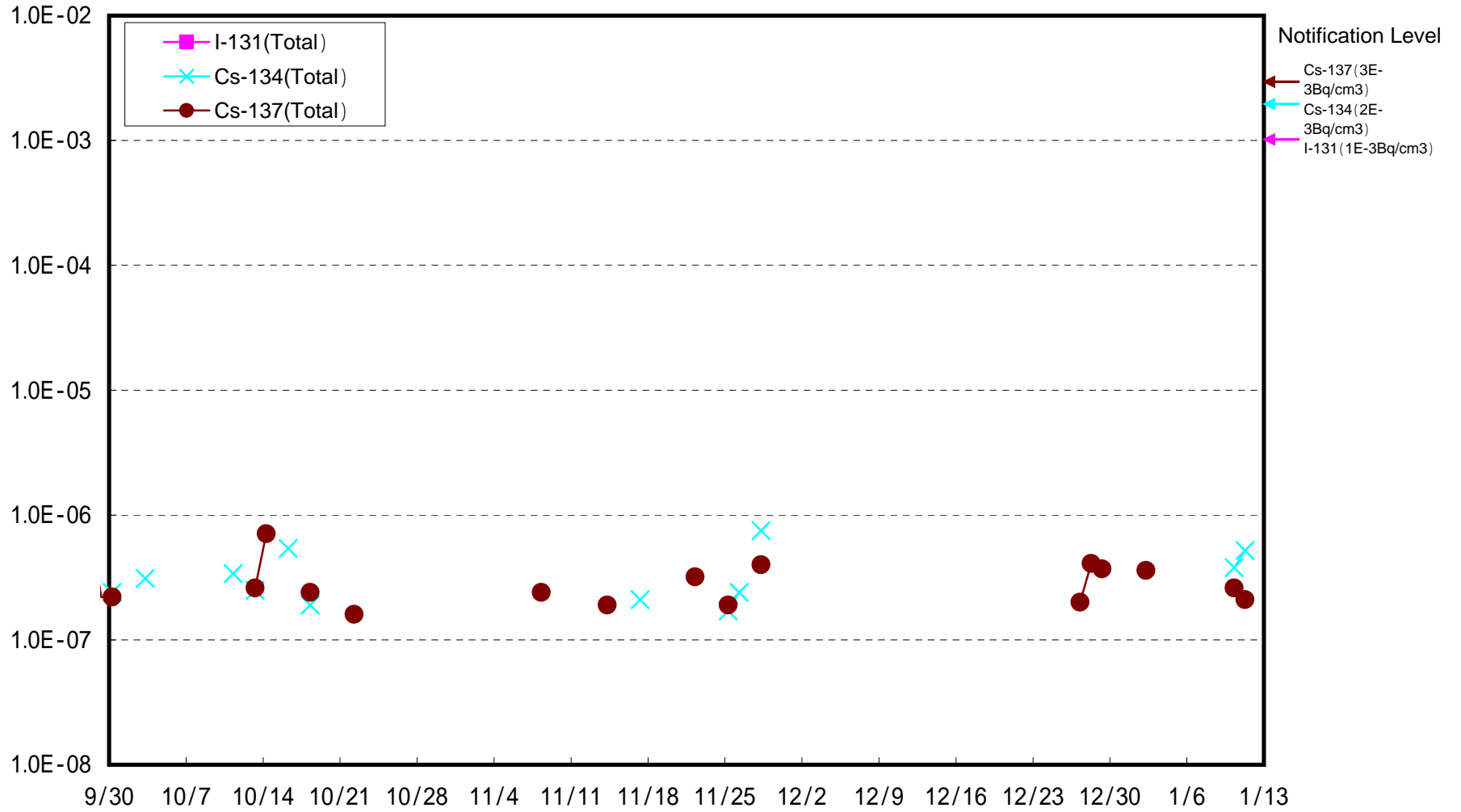
| Samples     | Date of sampling | Pu-238                          | Pu-239,Pu-240                   |
|-------------|------------------|---------------------------------|---------------------------------|
| Volatile    | 12/19            | N.D. [ $<6.0 \times 10^{-10}$ ] | N.D. [ $<6.0 \times 10^{-10}$ ] |
| Particulate |                  | N.D. [ $<6.1 \times 10^{-10}$ ] | N.D. [ $<6.1 \times 10^{-10}$ ] |

[ ] indicates the detection limit

4. Evaluation:

No Pu-238,Pu-239,Pu-240 was detected from samples this time.

West Gate of Fukushima Daiichi Nuclear Power Station  
Results of Dust Nuclide Analysis (Bq/cm<sup>3</sup>)



(Reference) Fukushima Daini MP-1  
Results of Dust Nuclide Analysis (Bq/cm<sup>3</sup>)

