## Nuclides Analysis Result of the Radioactive Materials in the Air at the Opening of Buildings at Fukushima Daiichi NPS < 1/4 >

Reference

#### (Data summarized on June 20)

| Place of Sampling                 | Unit 4 Reactor Building<br>Opening (Large Equipment<br>Hatch) |                            | Unit 1 Turbine Building<br>Opening (Large Equipment<br>Hatch) |                            | Unit 2 Turbine Building<br>Opening (Large Equipment<br>Hatch) |                            | Density Limit Specified by the Reactor Regulation (Bq/cm³) (Density limit in the air which radiation workers |
|-----------------------------------|---|----------------------------|---|----------------------------|---|----------------------------|--|
| Time of Sampling                  | June 15, 2014<br>9:15 AM -10:15 AM                            |                            | June 15, 2014<br>11:13 AM -12:13 AM                           |                            | June 15, 2014<br>11:13 AM -12:13 PM                           |                            |  |
| Detected Nuclides (Half-<br>life) | Density of Sample (Bq/cm <sup>3</sup> )                       | Scaling<br>Factor<br>( / ) | Density of Sample (Bq/cm <sup>3</sup> )                       | Scaling<br>Factor<br>( / ) | Density of Sample (Bq/cm <sup>3</sup> )                       | Scaling<br>Factor<br>( / ) | breathe in is specified in section 4 of Appendix 2)  |
| I-131 (Approx. 8 days)            | ND  | -                          | ND  | -                          | ND  | -                          | 1E-03  |
| Cs-134 (Approx. 2 years)          | ND  | -                          | ND  | -                          | ND  | -                          | 2E-03  |
| Cs-137 (Approx. 30 years)         | ND  | -                          | ND  | -                          | ND  | -                          | 3E-03  |

<sup>\*</sup> The radioactivity density is the sum of the volatile nuclides density and the particulate nuclides density.

O.OE - O is the same as O.O x 10<sup>-O</sup>

Data of other nuclides is under examination.

The detection limits are as follows. Volatile: I-131: Approx. 5E-6Bq/cm³, Cs-134: Approx.8E-6Bq/cm³, Cs-137: Approx.1E-5Bq/cm³ Particulate: I-131: Approx. 2E-6Bq/cm³, Cs-134: Approx.4E-6Bq/cm³, Cs-137: Approx.7E-6Bq/cm³ As the detection limit may vary depending on the detectors and sample properties, there are cases where nuclides below the detection limit are detected.

<sup>\*</sup> In the case of more than 2 nuclides, the sum of scaling factors to density limits is compared to 1.

<sup>\* &</sup>quot;ND" indicates that the measurement result is below the detection limit.

# Nuclides Analysis Result of the Radioactive Materials in the Air at the Opening of Buildings at Fukushima Daiichi NPS < 2/4 >

Reference

#### (Data summarized on June 20)

| Place of Sampling                 | Unit 3 Turbine Building<br>Opening (Large Equipment<br>Hatch) |                            | Unit 4 Turbine Building<br>Opening (Large Equipment<br>Hatch) |                            | Unit 1 Waste Treatment<br>Building (West Side Opening) |                            | Density Limit Specified by the Reactor Regulation (Bq/cm³) (Density limit in the air which radiation workers |
|-----------------------------------|---|----------------------------|---|----------------------------|--|----------------------------|--|
| Time of Sampling                  | June 15, 2014<br>11:13 AM -12:13 PM                           |                            | June 15, 2014<br>11:13 AM -12:13 PM                           |                            | June 15, 2014<br>9:05 AM -10:05 AM                     |                            |  |
| Detected Nuclides (Half-<br>life) | Density of Sample (Bq/cm <sup>3</sup> )                       | Scaling<br>Factor<br>( / ) | Density of Sample (Bq/cm <sup>3</sup> )                       | Scaling<br>Factor<br>( / ) | Density of Sample (Bq/cm <sup>3</sup> )                | Scaling<br>Factor<br>( / ) | breathe in is specified in section 4 of Appendix 2)  |
| I-131 (Approx. 8 days)            | ND  | -                          | ND  | -                          | ND   | -                          | 1E-03  |
| Cs-134 (Approx. 2 years)          | ND  | -                          | ND  | -                          | ND   | -                          | 2E-03  |
| Cs-137 (Approx. 30 years)         | ND  | -                          | ND  | -                          | ND   | -                          | 3E-03  |

<sup>\*</sup> The radioactivity density is the sum of the volatile nuclides density and the particulate nuclides density.

O.OE - O is the same as  $O.O \times 10^{-O}$ 

Data of other nuclides is under examination.

The detection limits are as follows. Volatile: I-131: Approx. 4E-6Bq/cm³, Cs-134: Approx.8E-6Bq/cm³, Cs-137: Approx.1E-5Bq/cm³ Particulate: I-131: Approx. 2E-6Bq/cm³, Cs-134: Approx.4E-6Bq/cm³, Cs-137: Approx.7E-6Bq/cm³ As the detection limit may vary depending on the detectors and sample properties, there are cases where nuclides below the detection limit are detected.

 $<sup>^{\</sup>star}$  In the case of more than 2 nuclides, the sum of scaling factors to density limits is compared to 1.

<sup>\* &</sup>quot;ND" indicates that the measurement result is below the detection limit.

# Nuclides Analysis Result of the Radioactive Materials in the Air at the Opening of Buildings at Fukushima Daiichi NPS < 3/4 >

Reference

#### (Data summarized on June 20)

| Place of Sampling                 | Unit 2 Waste Treatment<br>Building (West Side Opening) |                            | Unit 4 Waste Treatment<br>Building (Northwest Side<br>Opening) |                            | Process Main Building (East<br>Side Opening) |                            | Density Limit Specified by<br>the Reactor Regulation<br>(Bq/cm³) (Density limit in the<br>air which radiation workers |
|-----------------------------------|--|----------------------------|--|----------------------------|--|----------------------------|---|
| Time of Sampling                  | June 15, 2014<br>9:05 AM ~ 10:05 AM                    |                            | June 15, 2014<br>9:15 AM ~ 10:15 AM                            |                            | June 15, 2014<br>11:03 AM ~ 12:03 PM         |                            |   |
| Detected Nuclides (Half-<br>life) | Density of Sample (Bq/cm <sup>3</sup> )                | Scaling<br>Factor<br>( / ) | Density of Sample (Bq/cm <sup>3</sup> )                        | Scaling<br>Factor<br>( / ) | Density of Sample (Bq/cm <sup>3</sup> )      | Scaling<br>Factor<br>( / ) | breathe in is specified in section 4 of Appendix 2)   |
| I-131 (Approx. 8 days)            | ND   | 1                          | ND   | 1                          | ND   | 1                          | 1E-03   |
| Cs-134 (Approx. 2 years)          | ND   | -                          | ND   | -                          | ND   | -                          | 2E-03   |
| Cs-137 (Approx. 30 years)         | 1.0E-05  | 0.00                       | ND   | -                          | ND   | -                          | 3E-03   |

<sup>\*</sup> The radioactivity density is the sum of the volatile nuclides density and the particulate nuclides density.

O.OE - O is the same as  $O.O \times 10^{-O}$ 

Data of other nuclides is under examination.

The detection limits are as follows. Volatile: I-131: Approx. 4E-6Bq/cm³, Cs-134: Approx.8E-6Bq/cm³, Cs-137: Approx.1E-5Bq/cm³ Particulate: I-131: Approx. 2E-6Bq/cm³, Cs-134: Approx.5E-6Bq/cm³, Cs-134: Approx.5E-6Bq/cm³, Cs-137: Approx.5E-6Bq/cm³ As the detection limit may vary depending on the detectors and sample properties, there are cases where nuclides below the detection limit are detected.

<sup>\*</sup> In the case of more than 2 nuclides, the sum of scaling factors to density limits is compared to 1.

<sup>\* &</sup>quot;ND" indicates that the measurement result is below the detection limit.

# Nuclides Analysis Result of the Radioactive Materials in the Air at the Opening of Buildings at Fukushima Daiichi NPS < 4/4 >

Reference

### (Data summarized on June 20)

| Place of Sampling                 | Incineration Workshop<br>Building Opening (Southeast<br>Side) |                            | On-site Bunker Building<br>Opening (Large Equipment<br>Hatch) |                            | Miscellaneous Solid Waste<br>Volume Reduction Treatment<br>Building Opening (Northeast<br>Side) |                            | Density Limit Specified by<br>the Reactor Regulation<br>(Bq/cm³) (Density limit in the<br>air which radiation workers |
|-----------------------------------|---|----------------------------|---|----------------------------|---|----------------------------|---|
| Time of Sampling                  | June 15, 2014<br>9:15 AM - 10:15 AM                           |                            | June 15, 2014<br>11:03 AM - 12:03 PM                          |                            | June 15, 2014<br>9:15 AM - 10:15 AM   |                            |   |
| Detected Nuclides (Half-<br>life) | Density of Sample (Bq/cm <sup>3</sup> )                       | Scaling<br>Factor<br>( / ) | Density of Sample (Bq/cm <sup>3</sup> )                       | Scaling<br>Factor<br>( / ) | Density of Sample (Bq/cm <sup>3</sup> )   | Scaling<br>Factor<br>( / ) | breathe in is specified in section 4 of Appendix 2)   |
| I-131 (Approx. 8 days)            | ND  | -                          | ND  | -                          | ND  | -                          | 1E-03   |
| Cs-134 (Approx. 2 years)          | ND  | -                          | ND  | -                          | 4.6E-06   | 0.00                       | 2E-03   |
| Cs-137 (Approx. 30 years)         | ND  | -                          | ND  | -                          | 7.3E-06   | 0.00                       | 3E-03   |

<sup>\*</sup> The radioactivity density is the sum of the volatile nuclides density and the particulate nuclides density.

O.OE - O is the same as  $O.O \times 10^{-O}$ 

Data of other nuclides is under examination.

The detection limits are as follows. Volatile: I-131: Approx. 4E-6Bq/cm³, Cs-134: Approx.8E-6Bq/cm³, Cs-137: Approx.1E-5Bq/cm³ Particulate: I-131: Approx. 3E-6Bq/cm³, Cs-134: Approx.4E-6Bq/cm³, Cs-137: Approx.7E-6Bq/cm³ As the detection limit may vary depending on the detectors and sample properties, there are cases where nuclides below the detection limit are detected.

<sup>\*</sup> In the case of more than 2 nuclides, the sum of scaling factors to density limits is compared to 1.

<sup>\* &</sup>quot;ND" indicates that the measurement result is below the detection limit.