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 December 19)

| 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) |                             | ② Density Limit Specified by the Reactor Regulation (Bq/cm^3) (Density limit in the air which radiation workers |
|-----------------------------------|---|-----------------------------|---|----------------------------|---|-----------------------------|---|
| Time of Sampling                  | Dec 14, 2014<br>9:08AM-10:08AM                                |                             | Dec 14, 2014<br>11:03AM-12:03PM                               |                            | Dec 14, 2014<br>11:03AM-12:03PM                               |                             |   |
| Detected Nuclides (Half-<br>life) | ①Density of<br>Sample (Bq/cm^3)                               | Scaling<br>Factor<br>(1)/2) | ①Density of<br>Sample (Bq/cm^3)                               | Scaling<br>Factor<br>(①/②) | ①Density of<br>Sample (Bq/cm^3)                               | Scaling<br>Factor<br>(1)/2) | 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.

Data of other nuclides is under examination.

The detection limits are as follows. Volatile: I-131: Approx. 4E-6Bq/cm^3, Cs-134: Approx.7E-6Bq/cm^3, Cs-137: Approx.1E-5Bq/cm^3 Particulate: I-131: Approx. 2E-6Bq/cm^3, Cs-134: Approx.4E-6Bq/cm^3, Cs-137: Approx.7E-6Bq/cm^3 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> O.OE-O is the same as O.O x 10-O

<sup>\*</sup> In the case of 2 nuclides or more, 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 December 19)

| 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) |                             | ② Density Limit Specified by the Reactor Regulation (Bq/cm^3) (Density limit in the air which radiation workers breathe in is specified in |
|-----------------------------------|---|-----------------------------|---|----------------------------|--|-----------------------------|--|
| Time of Sampling                  | Dec 14, 2014<br>10:53AM-11:53AM                               |                             | Dec 14, 2014<br>10:53AM-11:53AM                               |                            | Dec 14, 2014<br>8:58AM-9:58AM                          |                             |  |
| Detected Nuclides (Half-<br>life) | ①Density of<br>Sample (Bq/cm^3)                               | Scaling<br>Factor<br>(1)/2) | ①Density of<br>Sample (Bq/cm^3)                               | Scaling<br>Factor<br>(①/②) | ①Density of<br>Sample (Bq/cm^3)                        | Scaling<br>Factor<br>(1)/2) | 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.

Data of other nuclides is under examination.

The detection limits are as follows. Volatile: I-131: Approx. 4E-6Bq/cm/3, Cs-134: Approx.7E-6Bq/cm/3, Cs-137: Approx.1E-5Bq/cm/3 Particulate: I-131: Approx. 2E-6Bq/cm/3, Cs-134: Approx.4E-6Bq/cm/3, Cs-137: Approx.4E-6Bq/cm/3 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> O.OE-O is the same as O.O x 10-O

<sup>\*</sup> In the case of 2 nuclides or more, 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 December 19)

| 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<br>Opening (East Side) |                             | ② Density Limit Specified by the Reactor Regulation (Bq/cm^3) (Density limit in the air which radiation workers breathe in is specified in |
|-----------------------------------|--|-----------------------------|--|-----------------------------|--|-----------------------------|--|
| Time of Sampling                  | Dec 14, 2014<br>8:58AM-9:58AM                          |                             | Dec 14, 2014<br>9:08AM-10:08AM                                 |                             | Dec 14, 2014<br>10:43AM-11:43AM              |                             |  |
| Detected Nuclides (Half-<br>life) | ①Density of<br>Sample (Bq/cm^3)                        | Scaling<br>Factor<br>(1)/2) | ①Density of<br>Sample (Bq/cm^3)                                | Scaling<br>Factor<br>(1)/2) | ①Density of<br>Sample (Bq/cm^3)              | Scaling<br>Factor<br>(1)/2) | section 4 of Appendix 2)   |
| I-131 (Approx. 8 days)            | ND   | -                           | ND   | -                           | ND   | -                           | 1E-03  |
| Cs-134 (Approx. 2 years)          | ND   | -                           | ND   | -                           | 7.0E-06                                      | 0.00                        | 2E-03  |
| Cs-137 (Approx. 30 years)         | ND   | -                           | ND   | -                           | 1.4E-05                                      | 0.00                        | 3E-03  |

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

Data of other nuclides is under examination.

The detection limits are as follows. Volatile: I-131: Approx. 4E-6Bq/cm/3, Cs-134: Approx.7E-6Bq/cm/3, Cs-137: Approx.1E-5Bq/cm/3 Particulate: I-131: Approx. 2E-6Bq/cm/3, Cs-134: Approx.4E-6Bq/cm/3, Cs-137: Approx.4E-6Bq/cm/3 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> O.OE-O is the same as O.O x 10-O

<sup>\*</sup> In the case of 2 nuclides or more, 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 December 10)

|                                   |   |                             |   |                             | Reference   | (Data sur                   | mmarized on December 19)                                    |
|-----------------------------------|---|-----------------------------|---|-----------------------------|---|-----------------------------|---|
| 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) |                             | ② Density Limit Specified by the Reactor Regulation         |
| Time of Sampling                  | Dec 14, 20<br>9:08AM-10:0                                     |                             | Dec 14, 2014<br>// 10:43AM-11:43AM                            |                             | Dec 14, 2014<br>9:08AM:10:08AM  |                             | (Bq/cm^3) (Density limit in the air which radiation workers |
| Detected Nuclides (Half-<br>life) | ①Density of<br>Sample (Bq/cm^3)                               | Scaling<br>Factor<br>(1)/2) | ①Density of<br>Sample (Bq/cm^3)                               | Scaling<br>Factor<br>(1)/2) | ①Density of<br>Sample (Bq/cm^3)   | Scaling<br>Factor<br>(1)/2) | 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.

Data of other nuclides is under examination.

The detection limits are as follows. Volatile:I-131:Approx.4E-6Bq/cm^3,Cs-134:Approx.7E-6Bq/cm^3,Cs-137:Approx.1E-5Bq/cm^3

Particulate:I-131:Approx.2E-6Bq/cm^3.Cs-134:Approx.4E-6Bq/cm^3,Cs-137:Approx.6E-6Bq/cm^3

As the detection limit may vary depending on the detectors and sample properites, there are cases where nuclides below the detection limit are detected.

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

<sup>\*</sup> In the case of 2 nuclides or more, 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.