

## About this CD-ROM

This CD-ROM compiles acceleration time history data recorded at the Hamaoka Nuclear Power Plant during the 2009 Suruga bay earthquake(main event and aftershocks) and 2009 West Shizuoka earthquake.

We hope that making this data public will aid advancement in seismology, earthquake engineering, and structural engineering among other scientific fields.

Please be advised that change in data may occur in future years as a result of advancement in data processing and analysis methods.

The directory structure of the CD-ROM is illustrated as follows.

```
/
| 00_README.txt : This file
| 01_Data_FileName.pdf
| 02_Data_Format.pdf
| 03_Collected_Data.pdf
| 04_Maximum_Acceleration.pdf
| 05_Outline_of_Locations.pdf
| 06_Detailed_Locations.pdf
| 07_Geology.pdf
| 08_Characteristics of Instruments.pdf
+-DATA : Data file
|
| +- 2009.5.25.20.26 West Shizuoka
| |
| | +- Data from Boreholes
| | |
| | | +- Unit2 Data from Boreholes
| | | +- Unit3 Data from Boreholes
| | | +- Unit4 Data from Boreholes
| | | +- Unit5 Data from Boreholes
| |
| | +- Data from Building Structures
| | |
| | | +- Unit1 Data from Building Structures
| | | +- Unit2 Data from Building Structures
| | | +- Unit3 Data from Building Structures
| | | +- Unit4 Data from Building Structures
| | | +- Unit5 Data from Building Structures
| |
| | +- Data from Stack
| | |
| | | +- Unit3 Data from Stack
| | | +- Unit4 Data from Stack
| | | +- Unit5 Data from Stack
|
| +- 2009.8.11.5.7 Suruga bay (Main shock)
| |
| | +- Data from Boreholes
| | |
```

- | | +- Unit2 Data from Boreholes
- | | +- Unit3 Data from Boreholes
- | | +- Unit4 Data from Boreholes
- | | +- Unit5 Data from Boreholes
- | |
- | +- Data from Building Structures
- | |
- | | +- Unit1 Data from Building Structures
- | | +- Unit2 Data from Building Structures
- | | +- Unit3 Data from Building Structures
- | | +- Unit4 Data from Building Structures
- | | +- Unit5 Data from Building Structures
- | |
- | +- Data from Stack
- | |
- | | +- Unit3 Data from Stack
- | | +- Unit4 Data from Stack
- | | +- Unit5 Data from Stack
- | |
- | +- Data from Equipments
- | |
- | | +- Unit3 Data from Equipments
- | | +- Unit4 Data from Equipments
- | | +- Unit5 Data from Equipments
- | |
- | +- 2009.8.11 Suruga bay(aftershocks)
- | |
- | | +- 2009.8.11.18.9 Suruga bay
- | | |
- | | | +- Data from Boreholes
- | | | |
- | | | | +- Unit3 Data from Boreholes
- | | | | +- Unit4 Data from Boreholes
- | | | | +- Unit5 Data from Boreholes
- | | |
- | | +- 2009.8.13.12.43 Suruga bay
- | | |
- | | | +- Data from Boreholes
- | | | |
- | | | | +- Unit3 Data from Boreholes
- | | | | +- Unit4 Data from Boreholes
- | | | | +- Unit5 Data from Boreholes
- | | |
- | | +- 2009.8.13.18.11 Suruga bay
- | | |
- | | | +- Data from Boreholes
- | | | |
- | | | | +- Unit3 Data from Boreholes
- | | | | +- Unit4 Data from Boreholes
- | | | | +- Unit5 Data from Boreholes

---

Note

- The North direction of the seismometers coincide with the NS-axis of the plant (Plant North, P.N.), along which all buildings are aligned. See file 05 for description of the P.N.

However, for the data from boreholes adjacent to Reactor Units 2, 3, 4, and 5, the orientation needs to be corrected. See file 01 for details of the required correction.

- Data for 3G1-40UD (from borehole near Unit 3) is listed as unknown because desensitization in the equipment was detected during post-earthquake inspection.

- Data for 5RB-20EW (from Reactor Building for Unit 5) is listed as unknown because the equipment is disfunctional.

- Data for VbE001B, VbE001C, and VbE002A (from equipments in Unit 4) is listed as unknown because equipment malfunction was detected during post-earthquake inspection.

- Please be advised that the data from equipments may include noise arising from the way the equipment is set.

- Data from the "2009 Shizuoka Earthquake (aftershocks)" is listed to the third decimal place. However, please be advised that the data includes integrated circuit noise because the effective number of bits for the equipment is 18 Bit.

- The earthquake source data in this CD-ROM are the tentative values determined by the Japan Meteorological Agency.

---

1. This CD-ROM may not be copied for distribution to a third person or party.
2. CHUBU Electric Power Company is to be credited as the provider of data for any outcome that result from use of this CD-ROM.

(Accelerometers of Unit 1)

Location: Reactor building

| ch No. | File name         | Observation Point | Component | Floor           | Location        | Remarks         |                 |        |  |
|--------|-------------------|-------------------|-----------|-----------------|-----------------|-----------------|-----------------|--------|--|
| 1      | 1RB-1NSR_BB2F.N-S | 1RB-1             | NS        | 2nd<br>basement | South           |                 |                 |        |  |
| 2      | 1RB-1EWR_BB2F.E-W |                   | EW        |                 |                 |                 |                 |        |  |
| 3      | 1RB-1UDR_BB2F.U-D |                   | UD        |                 |                 |                 |                 |        |  |
| 4      | 1RB-2NSR_BB2F.N-S | 1RB-2             | NS        |                 | 2nd<br>basement | East            |                 |        |  |
| 5      | 1RB-2EWR_BB2F.E-W |                   | EW        |                 |                 |                 |                 |        |  |
| 6      | 1RB-2UDR_BB2F.U-D |                   | UD        |                 |                 |                 |                 |        |  |
| 7      | 1RB-3NSR_BB2F.N-S | 1RB-3             | NS        |                 |                 | 2nd<br>basement | North           |        |  |
| 8      | 1RB-3EWR_BB2F.E-W |                   | EW        |                 |                 |                 |                 |        |  |
| 9      | 1RB-3UDR_BB2F.U-D |                   | UD        |                 |                 |                 |                 |        |  |
| 10     | 1RB-4NSR_BB2F.N-S | 1RB-4             | NS        |                 |                 |                 | 2nd<br>basement | West   |  |
| 11     | 1RB-4EWR_BB2F.E-W |                   | EW        |                 |                 |                 |                 |        |  |
| 12     | 1RB-4UDR_BB2F.U-D |                   | UD        |                 |                 |                 |                 |        |  |
| 13     | 1RB-5NSR_B1F.N-S  | 1RB-5             | NS        | 1st floor       |                 |                 |                 | South  |  |
| 14     | 1RB-5EWR_B1F.E-W  |                   | EW        |                 |                 |                 |                 |        |  |
| 15     | 1RB-5UDR_B1F.U-D  |                   | UD        |                 |                 |                 |                 |        |  |
| 16     | 1RB-6NSR_B5F.N-S  | 1RB-6             | NS        | 5th floor       | South           |                 |                 |        |  |
| 17     | 1RB-6EWR_B5F.E-W  |                   | EW        |                 |                 |                 |                 |        |  |
| 18     | 1RB-6UDR_B5F.U-D  |                   | UD        |                 |                 |                 |                 |        |  |
| 19     | 1RB-7NSR_B5F.N-S  | 1RB-7             | NS        |                 | 5th floor       | East            |                 |        |  |
| 20     | 1RB-7EWR_B5F.E-W  |                   | EW        |                 |                 |                 |                 |        |  |
| 21     | 1RB-7UDR_B5F.U-D  |                   | UD        |                 |                 |                 |                 |        |  |
| 22     | 1RB-8NSR_B5F.N-S  | 1RB-8             | NS        |                 |                 | 5th floor       | North           |        |  |
| 23     | 1RB-8EWR_B5F.E-W  |                   | EW        |                 |                 |                 |                 |        |  |
| 24     | 1RB-8UDR_B5F.U-D  |                   | UD        |                 |                 |                 |                 |        |  |
| 25     | 1RB-9NSR_BRF.N-S  | 1RB-9             | NS        |                 |                 |                 | Roof floor      | Middle |  |
| 26     | 1RB-9EWR_BRF.E-W  |                   | EW        |                 |                 |                 |                 |        |  |
| 27     | 1RB-9UDR_BRF.U-D  |                   | UD        |                 |                 |                 |                 |        |  |

## Data Format for accelerometers placed on ground and buildings

The data format is described using example data.

- Lines 1 and 2: Header information
- Starting Line 3: Data (Unit: Gal = cm/s/s)

- Header

Line 1: (1) Channel number (2) Total number of data (3) Sampling interval  
(4) Duration (5) Maximum acceleration

Line 2: (6) Responsible party (7) Date of recording (8) Start time (see #)  
(9) Location and component (10) "ACC"

Note #: Data starts after the 20 second pretrigger time passed

<Example>

```
+---1---+---2---+---3---+---4---+---5---+
      1  11000  0.01000 110.00000 157.39612
原子力土建G, 2009/08/11 05:07:16, 2G-1NS_N-S ACC
```

- Data (Unit: Gal = cm/s/s)

<Example>

```
+---1---+---2---+---3---+---4---+---5---+---6---+---7---+---8---+
      0.01   0.02   0.00  -0.03  -0.06  -0.08  -0.08  -0.06
      -0.03  -0.00   0.00  -0.01  -0.02  -0.03  -0.02  -0.00
```

# Summary of collected data

| No. | Seismic elements |       |     |      |        |                         |                |        |                |        |       |                  |        | Availability of data |            |                  |                  |          |
|-----|------------------|-------|-----|------|--------|-------------------------|----------------|--------|----------------|--------|-------|------------------|--------|----------------------|------------|------------------|------------------|----------|
|     | Focal time       |       |     |      |        | Epicenter               | North latitude |        | East longitude |        | Depth | M <sub>JMA</sub> | Δ (km) | X (km)               | Unit 1     | Unit 2           |                  |          |
|     | Year             | Month | Day | Hour | Minute |                         | Degree         | Minute | Degree         | Minute | (km)  |                  |        |                      | Building   | Boreholes        |                  | Building |
|     |                  |       |     |      |        |                         |                |        |                |        |       |                  |        | Reactor building     | Free field | Reactor building | Turbine building |          |
| 1   | 2009             | 5     | 25  | 20   | 26     | West Shizuoka           | 34             | 43.30  | 137            | 48.00  | 26    | 4.7              | 33.7   | 42.5                 | •          | •                | •                | -        |
| 2   | 2009             | 8     | 11  | 5    | 7      | Suruga bay (Main shock) | 34             | 47.10  | 138            | 29.90  | 23    | 6.5              | 37.0   | 43.5                 | •          | •                | •                | •        |
| 3   | 2009             | 8     | 11  | 18   | 9      | Suruga bay              | 34             | 49.10  | 138            | 31.80  | 20    | 4.4              | 41.4   | 45.9                 | -          | -                | -                | -        |
| 4   | 2009             | 8     | 13  | 12   | 43     | Suruga bay              | 34             | 48.80  | 138            | 29.20  | 19    | 4.3              | 37.8   | 42.3                 | -          | -                | -                | -        |
| 5   | 2009             | 8     | 13  | 18   | 11     | Suruga bay              | 34             | 50.40  | 138            | 24.50  | 23    | 4.5              | 34.2   | 41.2                 | -          | -                | -                | -        |

| No. | Seismic elements |       |     |      |        |                         |                |        |                |        |       |                  |        | Availability of data      |            |                                   |                    |                  |                    |                  |       |             |                     |       |           |                  |         |   |   |
|-----|------------------|-------|-----|------|--------|-------------------------|----------------|--------|----------------|--------|-------|------------------|--------|---------------------------|------------|-----------------------------------|--------------------|------------------|--------------------|------------------|-------|-------------|---------------------|-------|-----------|------------------|---------|---|---|
|     | Focal time       |       |     |      |        | Epicenter               | North latitude |        | East longitude |        | Depth | M <sub>JMA</sub> | Δ (km) | X (km)                    | Unit 3     |                                   |                    |                  | Equipment          |                  |       |             |                     |       |           |                  |         |   |   |
|     | Year             | Month | Day | Hour | Minute |                         | Degree         | Minute | Degree         | Minute | (km)  |                  |        |                           | (km)       | (km)                              | Boreholes          |                  | Building           |                  | Stack |             | Equipment           |       |           |                  |         |   |   |
|     |                  |       |     |      |        |                         |                |        |                |        |       |                  |        | Groud under the structure | Free field | Groud under the structure (200Hz) | Free field (200Hz) | Reactor building | Auxiliary building | Turbine building | Stack | Steel tower | Containment vessels | pipe* | Condenser | Reactor building | Outside |   |   |
| 1   | 2009             | 5     | 25  | 20   | 26     | West Shizuoka           | 34             | 43.30  | 137            | 48.00  | 26    | 4.7              | 33.7   | 42.5                      | •          | •                                 | -                  | -                | •                  | •                | -     | •           | •                   | -     | -         | -                | -       | - | - |
| 2   | 2009             | 8     | 11  | 5    | 7      | Suruga bay (Main shock) | 34             | 47.10  | 138            | 29.90  | 23    | 6.5              | 37.0   | 43.5                      | •          | •                                 | -                  | -                | •                  | •                | •     | •           | •                   | •     | •         | •                | •       | • | • |
| 3   | 2009             | 8     | 11  | 18   | 9      | Suruga bay              | 34             | 49.10  | 138            | 31.80  | 20    | 4.4              | 41.4   | 45.9                      | -          | -                                 | •                  | •                | -                  | -                | -     | -           | -                   | -     | -         | -                | -       | - |   |
| 4   | 2009             | 8     | 13  | 12   | 43     | Suruga bay              | 34             | 48.80  | 138            | 29.20  | 19    | 4.3              | 37.8   | 42.3                      | -          | -                                 | •                  | •                | •                  | -                | -     | -           | -                   | -     | -         | -                | -       | - |   |
| 5   | 2009             | 8     | 13  | 18   | 11     | Suruga bay              | 34             | 50.40  | 138            | 24.50  | 23    | 4.5              | 34.2   | 41.2                      | -          | -                                 | •                  | •                | -                  | -                | -     | -           | -                   | -     | -         | -                | -       | - |   |

\* Pipe of Reactor building, Turbine building and Containment vessels

| No. | Seismic elements |       |     |      |        |                         |                |        |                |        |       |                  |        | Availability of data      |            |                                   |                    |                  |           |             |                     |                              |                  |                  |                         |   |
|-----|------------------|-------|-----|------|--------|-------------------------|----------------|--------|----------------|--------|-------|------------------|--------|---------------------------|------------|-----------------------------------|--------------------|------------------|-----------|-------------|---------------------|------------------------------|------------------|------------------|-------------------------|---|
|     | Focal time       |       |     |      |        | Epicenter               | North latitude |        | East longitude |        | Depth | M <sub>JMA</sub> | Δ (km) | X (km)                    | Unit 4     |                                   |                    |                  | Equipment |             |                     |                              |                  |                  |                         |   |
|     | Year             | Month | Day | Hour | Minute |                         | Degree         | Minute | Degree         | Minute | (km)  |                  |        |                           | (km)       | (km)                              | Boreholes          |                  | Building  | Stack       |                     | Equipment                    |                  |                  |                         |   |
|     |                  |       |     |      |        |                         |                |        |                |        |       |                  |        | Groud under the structure | Free field | Groud under the structure (200Hz) | Free field (200Hz) | Reactor building | Stack     | Steel tower | Containment vessels | Turbine-Generator Foundation | Reactor building | Turbine building | Heat Exchanger Building |   |
| 1   | 2009             | 5     | 25  | 20   | 26     | West Shizuoka           | 34             | 43.30  | 137            | 48.00  | 26    | 4.7              | 33.7   | 42.5                      | •          | •                                 | -                  | -                | •         | •           | •                   | -                            | -                | -                | -                       | - |
| 2   | 2009             | 8     | 11  | 5    | 7      | Suruga bay (Main shock) | 34             | 47.10  | 138            | 29.90  | 23    | 6.5              | 37.0   | 43.5                      | •          | •                                 | -                  | -                | •         | •           | •                   | •                            | •                | •                | •                       | • |
| 3   | 2009             | 8     | 11  | 18   | 9      | Suruga bay              | 34             | 49.10  | 138            | 31.80  | 20    | 4.4              | 41.4   | 45.9                      | -          | -                                 | •                  | •                | -         | -           | -                   | -                            | -                | -                | -                       |   |
| 4   | 2009             | 8     | 13  | 12   | 43     | Suruga bay              | 34             | 48.80  | 138            | 29.20  | 19    | 4.3              | 37.8   | 42.3                      | -          | -                                 | •                  | •                | •         | -           | -                   | -                            | -                | -                | -                       |   |
| 5   | 2009             | 8     | 13  | 18   | 11     | Suruga bay              | 34             | 50.40  | 138            | 24.50  | 23    | 4.5              | 34.2   | 41.2                      | -          | -                                 | •                  | •                | -         | -           | -                   | -                            | -                | -                | -                       |   |

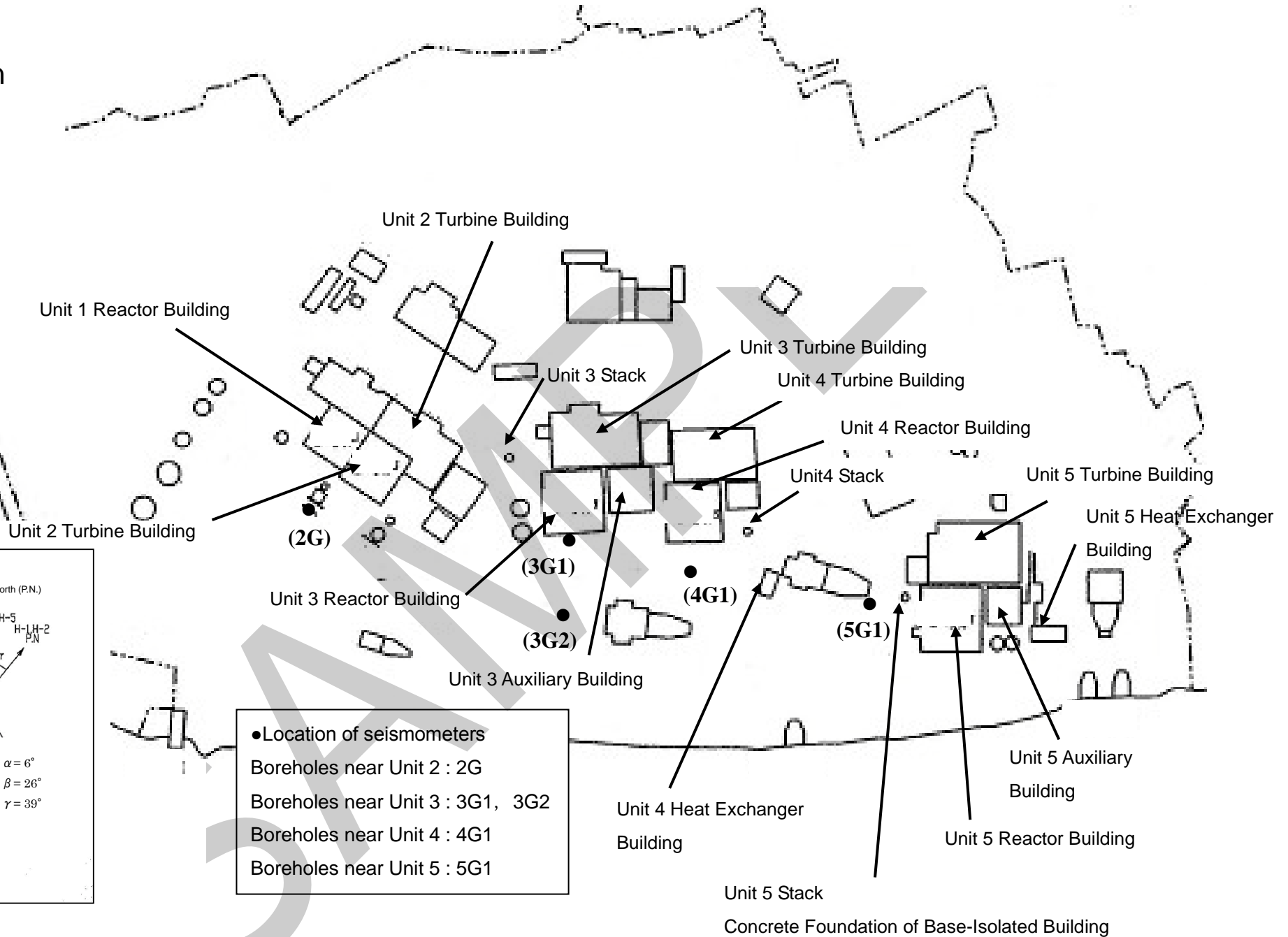
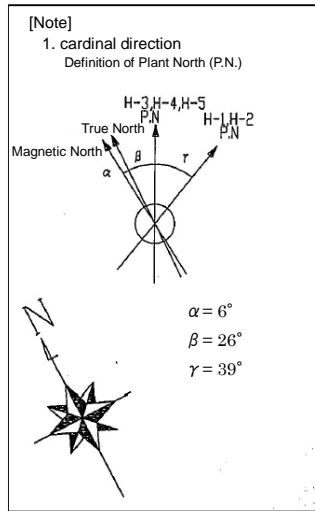
| No. | Seismic elements |       |     |      |        |                         |                |        |                |        |       |                  |        | Availability of data      |            |                                   |                    |                  |                  |       |             |                                      |                     |                              |                  |                         |                    |   |
|-----|------------------|-------|-----|------|--------|-------------------------|----------------|--------|----------------|--------|-------|------------------|--------|---------------------------|------------|-----------------------------------|--------------------|------------------|------------------|-------|-------------|--------------------------------------|---------------------|------------------------------|------------------|-------------------------|--------------------|---|
|     | Focal time       |       |     |      |        | Epicenter               | North latitude |        | East longitude |        | Depth | M <sub>JMA</sub> | Δ (km) | X (km)                    | Unit 5     |                                   |                    |                  | Equipment        |       |             |                                      |                     |                              |                  |                         |                    |   |
|     | Year             | Month | Day | Hour | Minute |                         | Degree         | Minute | Degree         | Minute | (km)  |                  |        |                           | (km)       | (km)                              | Boreholes          |                  | Building         |       | Stack       |                                      |                     | Equipment                    |                  |                         |                    |   |
|     |                  |       |     |      |        |                         |                |        |                |        |       |                  |        | Groud under the structure | Free field | Groud under the structure (200Hz) | Free field (200Hz) | Reactor building | Turbine building | Stack | Steel tower | Foundation of base isolated building | Containment vessels | Turbine-Generator Foundation | Reactor building | Heat Exchanger Building | Auxiliary building |   |
| 1   | 2009             | 5     | 25  | 20   | 26     | West Shizuoka           | 34             | 43.30  | 137            | 48.00  | 26    | 4.7              | 33.7   | 42.5                      | •          | •                                 | -                  | -                | •                | -     | •           | •                                    | -                   | -                            | -                | -                       | -                  | - |
| 2   | 2009             | 8     | 11  | 5    | 7      | Suruga bay (Main shock) | 34             | 47.10  | 138            | 29.90  | 23    | 6.5              | 37.0   | 43.5                      | •          | •                                 | -                  | -                | •                | •     | •           | •                                    | •                   | •                            | •                | •                       | •                  | • |
| 3   | 2009             | 8     | 11  | 18   | 9      | Suruga bay              | 34             | 49.10  | 138            | 31.80  | 20    | 4.4              | 41.4   | 45.9                      | -          | -                                 | •                  | •                | -                | -     | -           | -                                    | -                   | -                            | -                | -                       | -                  |   |
| 4   | 2009             | 8     | 13  | 12   | 43     | Suruga bay              | 34             | 48.80  | 138            | 29.20  | 19    | 4.3              | 37.8   | 42.3                      | -          | -                                 | •                  | •                | •                | -     | -           | -                                    | -                   | -                            | -                | -                       | -                  |   |
| 5   | 2009             | 8     | 13  | 18   | 11     | Suruga bay              | 34             | 50.40  | 138            | 24.50  | 23    | 4.5              | 34.2   | 41.2                      | -          | -                                 | •                  | •                | -                | -     | -           | -                                    | -                   | -                            | -                | -                       | -                  |   |

(Explanatory note)  
 • Previously disclosed on September 3 and October 5, 2009  
 • Newly disclosed

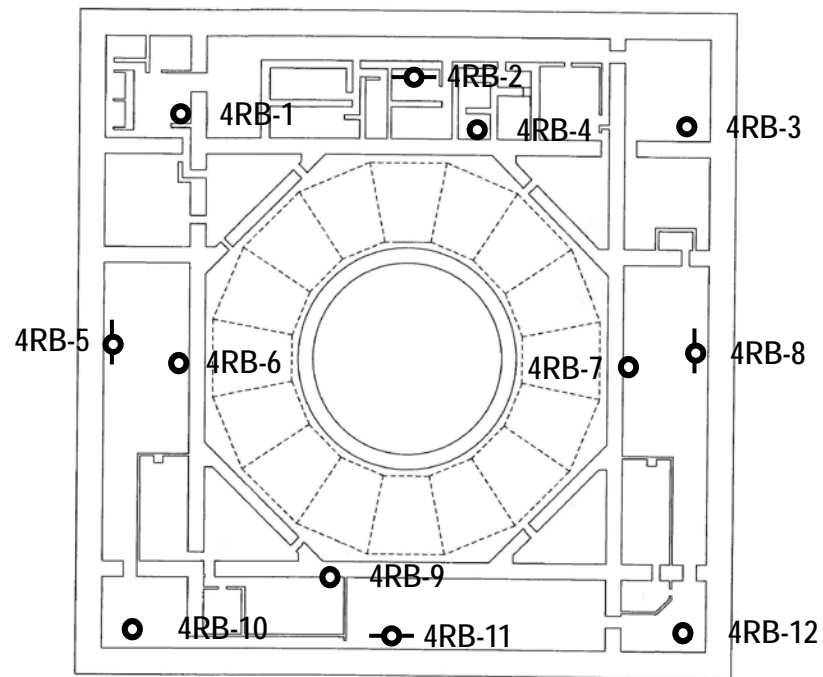
Note: Unless indicated otherwise, sampling interval is 100 Hz.

# Site plan

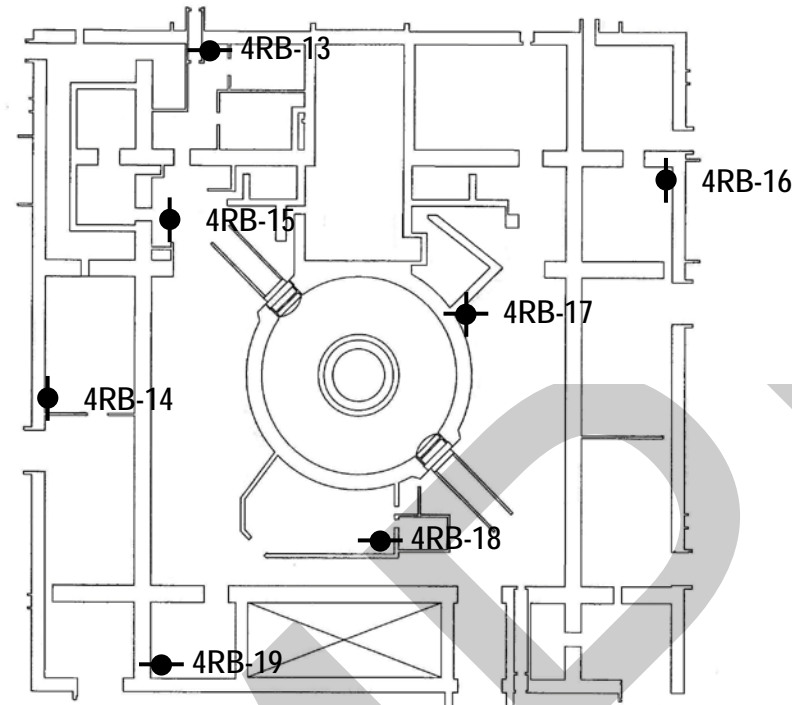
1



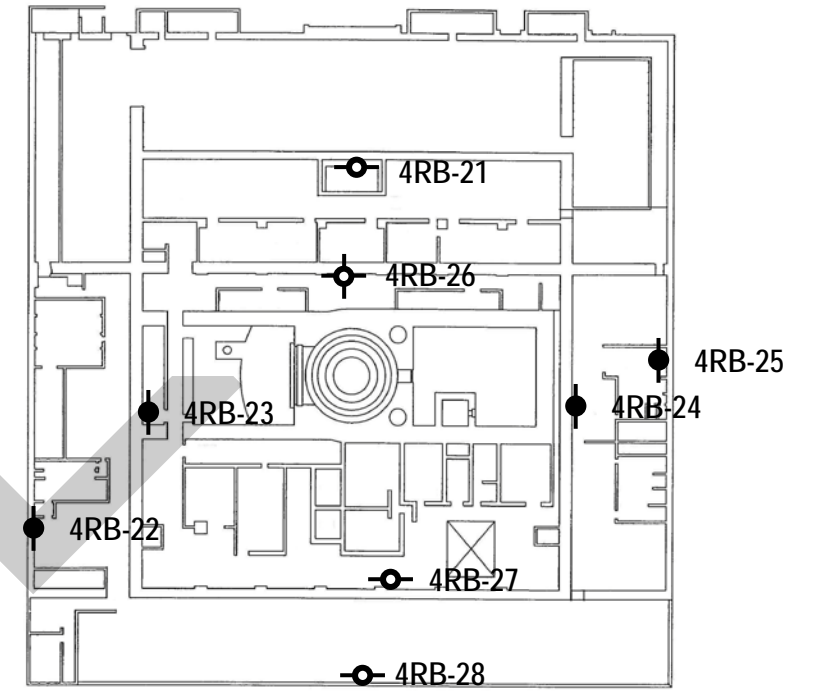
Location of accelerometers for Unit 4  
(Reactor Building)



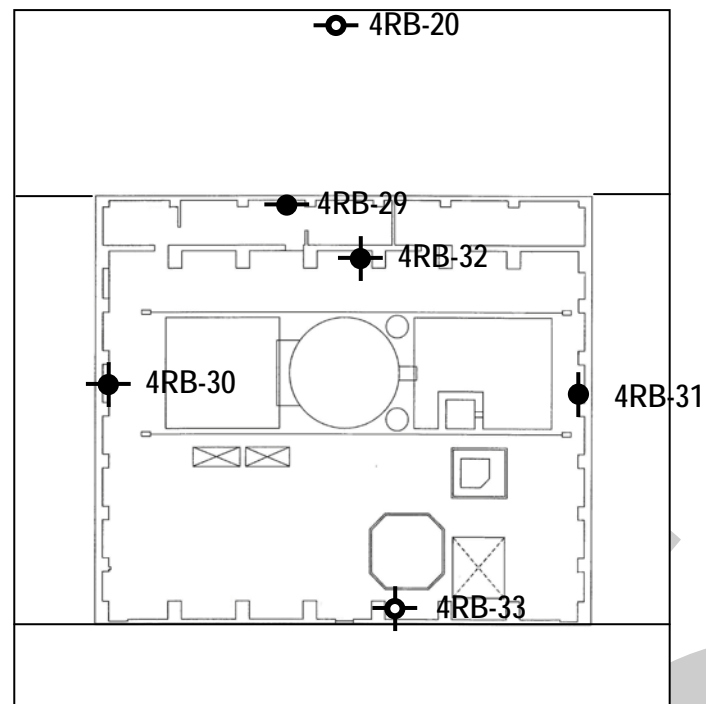
Reactor Building (Second basement floor)  
FL - 15.0 m, T.P. - 9.0 m



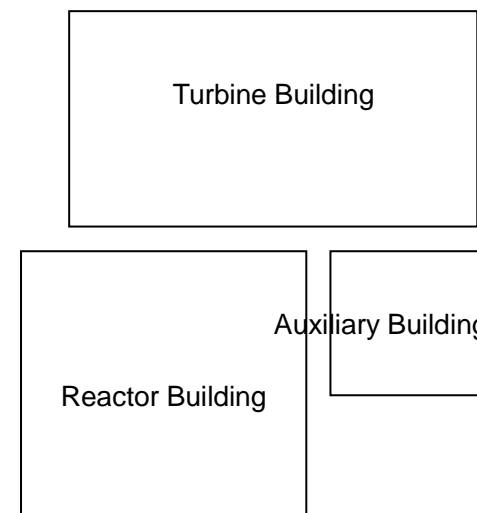
Reactor Building (First floor)  
FL ± 0 m, T.P. + 6.0 m



Reactor Building (Third floor)  
FL + 16.8 m, T.P. + 22.8 m



Reactor Building (Fourth floor)  
FL + 27.8 m, T.P. + 33.8 m



< Accelerometer Symbols >

|  |              |
|--|--------------|
|  | : NS, EW, UD |
|  | : NS, EW     |
|  | : NS, UD     |
|  | : EW, UD     |
|  | : NS         |
|  | : EW         |
|  | : UD         |



| Altitude<br>T.P. (m) | 2G             |   | 3G1            |   | 3G2            |   | 4G1         |   | 5G1         |   |
|----------------------|----------------|---|----------------|---|----------------|---|-------------|---|-------------|---|
|                      | Seismometer    | Geology   | Seismometer    | Geology   | Seismometer    | Geology   | Seismometer | Geology   | Seismometer | Geology   |
| +8.0                 |                |   |                |   |                |   |             |   | ↓G.L.       |   |
| +6.0                 | ↓G.L.          |   | ↓G.L.          |   | ↓G.L.          |   | ↓G.L.       |   | ○           | sand,<br>sand gravel                              |
| +4.0                 | ○<br>G.L. - 2m | sand,<br>sand gravel                              | ○<br>G.L. - 2m | sand,<br>sand gravel                              | ○<br>G.L. - 2m | sand,<br>sand gravel                              |             | sand,<br>sand gravel                              | G.L. - 2m   |   |
| -10.0                |                |   |                |   |                |   | G.L. - 20m  |   | G.L. - 22m  |   |
| -14.0                |                |   |                |   |                |   | ○           |   | ○           |   |
| -17.0                |                |   | G.L. - 25m     |   | G.L. - 25m     |   |             |   |             |   |
| -19.0                |                |   | ○              |   | ○              |   |             |   |             |   |
| -34.0                |                |   | G.L. - 40m     |   | G.L. - 40m     |   |             |   |             |   |
|                      |                |   | ○              |   | ○              |   |             |   |             |   |
| -45.6                |                | alternation<br>of<br>sandstone<br>and<br>mudstone |                | alternation<br>of<br>sandstone<br>and<br>mudstone |                | alternation<br>of<br>sandstone<br>and<br>mudstone |             | alternation<br>of<br>sandstone<br>and<br>mudstone |             | alternation<br>of<br>sandstone<br>and<br>mudstone |
| -78.2                |                |   |                |   |                |   |             |   |             |   |
| -92.0                |                |   | G.L. - 100m    |   | G.L. - 100m    |   | G.L. - 100m |   | G.L. - 100m |   |
| -94.0                |                |   | ○              |   | ○              |   | ○           |   | ○           |   |

Location of seismometer (geological stratum)

## Instrumental characteristics of seismometers

- Seismometers for buildings at Unit 1, Unit2
- Seismometers for ground near Unit 1, Unit2

| Device        |                      | Specifications             |  |   |
|---------------|----------------------|----------------------------|--|---|
|               |                      | Buildings                  | Ground   |   |
| Accelerometer |                      | Model                      | FBA-EST  | SBEPI   |
|               |                      | Method                     | Servo type accelerometer<br>(Displacement feedback)  | Servo type accelerometer<br>(Displacement feedback) |
|               |                      | Frequency                  | DC~200Hz   | DC~200Hz  |
|               |                      | Sensitivity                | 1.25V/G  | 1.25V/G   |
|               |                      | Measurement range          | ±2G  | ±2G   |
| Amplifier     |                      | Frequency                  | DC~1kHz  |   |
|               |                      | Low-pass filter setting    | f0=40Hz -24dB/oct  |   |
| Recorder      | Startup unit         | Startup system             | AND system using two components of the startup channel   |   |
|               |                      | Startup level              | 0.0196-1960Gal (any setting in 0.0196Gal increments)<br>Current setting: 2Gal  |   |
|               | Data processing unit | Frequency                  | DC-40Hz  |   |
|               |                      | Recording medium           | CF Memory Card (512MB)   |   |
|               |                      | Max. recording duration    | Approx. 8 hours (@100 Hz)  |   |
|               |                      | Recording length           | Starts recording 20 seconds before reaching the startup level (2Gal) and maintains recording for 30 seconds after going below the startup level.<br>Maximum recording duration per earthquake is approx 1, 240 minutes (equivalent to the residual memory space) |   |
|               |                      | Recording method           | Sequential mode (Continuously record on two cards)   |   |
|               |                      | A/D resolution             | 24bit  |   |
|               |                      | Sampling frequency         | 20, 40, 50, 100, 200Hz<br>Current setting : 100Hz  |   |
|               |                      | Delay time                 | Pre-trigger (before an earthquake) :<br>1-89 seconds (any setting at 1-second increments) ,<br>currently set at 20 seconds   |   |
|               | Clock unit           | Display                    | Year / Month / Date / Hour / Minute / Second   |   |
|               |                      | Time calibration function  | Auto-calibration using GPS   |   |
|               | UPS                  | Guaranteed supply duration | Approx. 10 minutes   |   |