### Outline of Utilities’ Preparatory Measures for Response to Severe Accidents

**Appendix 2**

<table>
<thead>
<tr>
<th>Power supply for operation of emergency ventilation air-conditioning system equipment, improvement of operating procedures</th>
<th>Securing means for communication in the power plant</th>
<th>Securing materials and equipment such as high level radiation protective suits</th>
<th>Measures to prevent hydrogen explosion</th>
<th>Deployment of heavy machinery for rubble removal</th>
<th>Securing power supply</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hokkaido</td>
<td>Tomari</td>
<td>Unit 1</td>
<td>Unit 2</td>
<td>Unit 3</td>
<td>PWR</td>
</tr>
<tr>
<td>&lt;Securing power supply&gt;</td>
<td>&lt;Power source vehicle (already prepared through emergency safety measures)&gt;</td>
<td>&lt;Improvement of operating procedures&gt;</td>
<td>Already improved</td>
<td>&lt;PHS, paging device&gt;</td>
<td>&lt;High level radiation protective suits, etc.&gt;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>&lt;Alternate communication means&gt;</td>
<td>&lt;Development of a system concerning radiation control measures in emergency&gt;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>&lt;Alternate means of communication&gt;</td>
<td>&lt;Development of a system concerning radiation control measures in emergency&gt;</td>
</tr>
<tr>
<td></td>
<td></td>
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<td></td>
<td>Materials and equipment such as high-level radiation protective suits</td>
<td>&lt;Development of a system concerning radiation control measures in emergency&gt;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Development of a system concerning radiation control measures</td>
<td>&lt;Development of heavy machinery&gt;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>&lt;Short-term countermeasures&gt;</td>
<td>A wheeler with the maximum breakout force: approx. 5.7 tons (already deployed)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Operating procedures already improved for releasing hydrogen by using annular exhaust equipment</td>
<td>Ensuring power supply for annular operation by means of a power source vehicle</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Ensuring power supply for annular operation by means of a power source vehicle (already provided through emergency safety measures)</td>
<td>• Mid-grade and long-term countermeasures</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• A device for treating hydrogen (static catalytic recombiner, etc.) to be installed in the PCV (in the next three years or so)</td>
<td>Unit 1: 110 kVA Unit 2: 110 kVA Unit 3: 255 kVA</td>
</tr>
<tr>
<td></td>
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<td></td>
<td>• The air conditioner of either Unit 1 or 2 will have to be operated (recorded as Unit 1)</td>
<td>Unit 1: 13 kVA Unit 2: 13 kVA Unit 3: 44 kVA</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>&lt;Power source vehicle&gt;</td>
<td>Unit 1: 180 kVA Unit 2: 234 kVA Unit 3: 350 kVA</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Shared by Units 1 to 3</td>
<td>400 kVA × 1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Backup</td>
<td>625 kVA × 1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tohoku</th>
<th>Higashi-dori</th>
<th>Unit 1</th>
<th>BWR</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;Securing power supply&gt;</td>
<td>&lt;Power source vehicle (already prepared through emergency safety measures)&gt;</td>
<td>&lt;Improvement of operating procedures&gt;</td>
<td>Already improved</td>
</tr>
<tr>
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</tr>
</tbody>
</table>
Tohoku

Onagawa

Unit 1

Unit 2

Unit 3

BWR

<Securing power supply>
- Power source vehicle (already prepared through emergency safety measures)
- Deployment of necessary materials and equipment (to be completed in July 2011)

<Improvement of operating procedures>
- Already improved.
- <PHS, paging device>
- Operational for more than a few hours by means of storage batteries even during SHO.
- Power supply ensured thereafter by power source vehicle (already provided through emergency safety measures).

<Alternate communication means>
- Satellite phones and mobile radios already deployed.

<High level radiation protective suits, etc.>
- Preparation for 10 high-level radiation protective suits (to be completed at the end of July, 2011)
- Already agreed in writing to mutually accommodate nuclear operators with high-level radiation protective suits, personal dosimeters, and full-scale masks.

<Development of a system concerning radiation control measures>
- The system has already been developed for backing up radiation control personnel from a power plant where no accident occurs.
- The system has already been completed for extending a helping hand to contamination measurement and radiation measurement of working environment by personnel other than radiation control group members, as well as other incidental services such as administration of materials and equipment.

<Deployment of heavy machinery>
- A wheel loader (approx. 12 tons) to be deployed (in mid-June 2011).

- Unit 1: 287 kVA
- Unit 2: 217 kVA
- Unit 3: 188 kVA
- Shared use: 50 kVA

- Unit 1: 409 kVA
- Unit 2: 367 kVA
- Unit 3: 336 kVA
- Shared use: 50 kVA
- <Power source vehicle>
- Shared by Units 1 to 3

Tokyo

Kashiwazaki-Kariwa

Unit 1

Unit 2

Unit 3

Unit 4

Unit 5

Unit 6

Unit 7

BWR

BWR

BWR

BWR

AB-WR

AB-WR

<Securing power supply>
- Six additional power source vehicles already prepared.
- Capacity of two generators already increased.

<Improvement of operating procedures>
- Already improved.
- <PHS, paging device>
- Operational for more than a few hours by means of storage batteries even during SHO.
- Power supply ensured thereafter by power source vehicle (already provided through emergency safety measures).

<Alternate communication means>
- Transceivers, satellite phones, and mobile radios already deployed.

<High-level radiation protective suits, etc.>
- Preparation for 10 high-level radiation protective suits (to be completed at the end of July, 2011)
- Already agreed in writing to mutually accommodate nuclear operators with high-level radiation protective suits.

<Development of a system concerning radiation control measures>
- Security personnel by giving training to personnel other than radiation control group members.
- The system concerning radiation control measures have already been completed for drilling work for releasing leaked hydrogen from the reactor building.
- Required materials and equipment already deployed.
- A wheel loader (maximum breakout force: approx. 12 tons) already deployed.
- <Deployment of heavy machinery>
- Two wheel loaders (maximum breakout force: approx. 12 tons) already deployed.
- The following are to be

- <Plants in operation>
- Approx. 462 kVA
- Approx. 373 kVA
- Approx. 383 kVA
- Approx. 191 kVA
- Approx. 159 kVA

- <Plants in operation>
- Approx. 654 kVA
- Approx. 582 kVA
- Approx. 613 kVA

- <Power source vehicle>
- Shared by Units 1 to 3

- <Power source vehicle>
- Shared by Units 1 to 3
<table>
<thead>
<tr>
<th>Region</th>
<th>Unit 1</th>
<th>Unit 2</th>
<th>Unit 3</th>
<th>Unit 4</th>
<th>Unit 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chubu</td>
<td>BWR</td>
<td>BWR</td>
<td>BWR</td>
<td>BWR</td>
<td>BWR</td>
</tr>
<tr>
<td>Hamaoka</td>
<td>Unit 1</td>
<td>Unit 2</td>
<td>Unit 3</td>
<td>Unit 4</td>
<td>Unit 5</td>
</tr>
</tbody>
</table>

- **Securing power supply**  
  - Three additional power source vehicles already prepared.
  - Improvement of operating procedures > Already improved.

- **High-level radiation protective suits, personal dosimeters, and full-scale masks.**
  - Already completed for securing personnel other than radiation control personnel and extending a helping hand to services such as radiation measurement.

- **Development of a system concerning radiation control measures**
  - Securing personnel by giving training to personnel other than radiation

- **Deployment of heavy machinery**
  - A wheel loader (maximum breakout force: approx. 6.4 tons) already deployed. A power shovel (maximum breakout force: approx. 14.5 tons) already deployed.

- **Development of heavy machinery**
  - A wheel loader (maximum breakout force: approx. 6.3 tons) already deployed. A bulldozer

- **Deployment of heavy machinery**
  - A wheel loader (maximum breakout force: approx. 3.8 kVA is replaced)

- **Power source vehicles**
  - Unit 1: Approx. 350 kVA × 1 (a generator of 195 kVA is replaced) Unit 4: 350 kVA × 1 (a generator of 195 kVA is replaced)
<table>
<thead>
<tr>
<th>Region</th>
<th>Plant</th>
<th>Unit 1</th>
<th>Unit 2</th>
<th>Unit 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hokuriku</td>
<td>Shika</td>
<td>BWR</td>
<td>Securing power supply*</td>
<td>Power source vehicle (already prepared through emergency safety measures)</td>
</tr>
<tr>
<td>Kansai</td>
<td>Mihama</td>
<td>PWR</td>
<td>Securing power supply*</td>
<td>Power source vehicle (already prepared through emergency safety measures)</td>
</tr>
</tbody>
</table>

*Improvement of operating procedures > Already improved.

**Improvement of operating procedures > Already improved.

- Accommodate nuclear operators with high-level radiation protective suits, personal dosimeters, and full-scale masks.
- Control group members.
  - The system already completed for securing personnel other than radiation control personnel and extending a helping hand to services such as measurement of goods, screening of workers, loan of dosimeters, and data entry.
- Equipment and equipment (those for a plant already deployed, and the remaining to be completed at the end of July 2011).
- Improvement of long-term countermeasures
  - Installation of a hydrogen detector in the reactor building (to be completed in the first half of fiscal 2012).
  - Installation of a venting unit at the top of the reactor building (to be completed in the first half of fiscal 2012).
- Improvement of short-term countermeasures
  - Procedures already completed for releasing hydrogen from the reactor building.
  - Deployment of required materials and equipment (to be completed at the end of June 2011).
  - Improvement of long-term countermeasures
  - Installation of a hydrogen detector in the reactor building (to be completed at the end of FY 2012).
  - Installation of a venting unit at the top of the reactor building (to be completed at the end of FY 2012).

(Unit 1: 29.4 kVA, Unit 2: 35 kVA, Unit 3: 18 kVA)
- Improvement of middle-term countermeasures
  - Procedures already completed for releasing hydrogen from the reactor building.
  - Deployment of required materials and equipment (to be completed at the end of June 2011).
- Improvement of long-term countermeasures
  - Installation of a hydrogen detector in the reactor building (to be completed at the end of FY 2012).
  - Installation of a venting unit at the top of the reactor building (to be completed at the end of FY 2012).

(Unit 1: 586 kVA, Unit 2: 733 kVA, Unit 3: 500 kVA)

*Approx. 195 kVA Unit 5: Approx. 202 kVA
Approx. 220 kVA Unit 5: Approx. 263 kVA
Approx. 415 kVA Unit 5: Approx. 465 kVA

(Unit 3: 150 kVA × 4 (two of which are added))
(Unit 4: 150 kVA × 2 (addition))
(Unit 5: 125 kVA × 3 (addition))

(Unit 1: 115.4 kVA Unit 2: 126.4 kVA
This already recorded as "Capacity required for emergency countermeasures."

(Unit 1: 586 kVA Unit 2: 733 kVA)
- Installation of a venting unit at the top of the reactor building (to be completed at the end of FY 2012).

(Unit 1: 274 kVA Unit 2: 326 kVA Unit 3: 325 kVA)
- Improvement of short-term countermeasures
  - Procedures already completed for releasing hydrogen from the reactor building.
  - Deployment of required materials and equipment (to be completed at the end of June 2011).
- Improvement of heavy machinery
  - A wheeler loader (maximum breakout force: approx. 6.3 tons) already deployed.
  - A bulldozer (approx. 9.5 tons) already deployed.
- Improvement of heavy machinery
  - A wheeler loader (maximum breakout force: approx. 9.5 tons) already deployed.
  - A crawler carrier (carrying power of approx. 5.6 tons) already deployed.
- Improvement of heavy machinery
  - A wheeler loader (maximum breakout force: approx. 9.5 tons) already deployed.
- Improvement of heavy machinery
  - A wheeler loader (maximum breakout force: approx. 9.5 tons) already deployed.

(Unit 1: 29 kVA Unit 2: 35 kVA Unit 3: 106 kVA
"The air conditioning system of either Unit 1 or 2 will have"

(Unit 1: 305 kVA Unit 2: 366 kVA Unit 3: 449 kVA)
- Improvement of short-term countermeasures
  - Procedures already completed for releasing hydrogen from the reactor building.
  - Deployment of required materials and equipment (to be completed at the end of June 2011).
- Improvement of heavy machinery
  - A wheeler loader (maximum breakout force: approx. 9.5 tons) already deployed.
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- Improvement of heavy machinery
  - A wheeler loader (maximum breakout force: approx. 9.5 tons) already deployed.

(Unit 1: 305 kVA Unit 2: 366 kVA Unit 3: 449 kVA)
- Improvement of short-term countermeasures
  - Procedures already completed for releasing hydrogen from the reactor building.
  - Deployment of required materials and equipment (to be completed at the end of June 2011).
- Improvement of heavy machinery
  - A wheeler loader (maximum breakout force: approx. 9.5 tons) already deployed.
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- Improvement of heavy machinery
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- Improvement of heavy machinery
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(Unit 1: 29 kVA Unit 2: 35 kVA Unit 3: 106 kVA
"The air conditioning system of either Unit 1 or 2 will have"

(Unit 1: 305 kVA Unit 2: 366 kVA Unit 3: 449 kVA)
- Improvement of short-term countermeasures
  - Procedures already completed for releasing hydrogen from the reactor building.
  - Deployment of required materials and equipment (to be completed at the end of June 2011).
- Improvement of heavy machinery
  - A wheeler loader (maximum breakout force: approx. 9.5 tons) already deployed.
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- Improvement of heavy machinery
  - A wheeler loader (maximum breakout force: approx. 9.5 tons) already deployed.
### Kansai

<table>
<thead>
<tr>
<th>Unit</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ohi</strong></td>
<td><strong>PWR</strong></td>
<td><strong>Unit 1</strong></td>
<td><strong>Unit 2</strong></td>
<td><strong>Unit 3</strong></td>
</tr>
<tr>
<td><strong>Kansai Takaha</strong></td>
<td><strong>PWR</strong></td>
<td><strong>Unit 1</strong></td>
<td><strong>Unit 2</strong></td>
<td><strong>Unit 3</strong></td>
</tr>
</tbody>
</table>

- **Securing power supply**
  - Power source vehicle (already prepared through emergency safety measures)
- **Improvement of operating procedures**
  - Already improved
- **Development of a system concerning radiation control measures**
  - The system already completed for securing personnel other than radiation control personnel and extending a helping hand to services such as data entry.
- **Deployment of heavy machinery**
  - A wheel loader (maximum breakout force: approx. 13.6 tons) already deployed.

#### Power source vehicle

<table>
<thead>
<tr>
<th>Type</th>
<th>Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit 1:</td>
<td>102 kVA</td>
</tr>
<tr>
<td>Unit 2:</td>
<td>422 kVA</td>
</tr>
<tr>
<td>Unit 3:</td>
<td>390 kVA</td>
</tr>
<tr>
<td>Unit 4:</td>
<td>390 kVA</td>
</tr>
</tbody>
</table>

- **Power source vehicle**
  - Unit 1: 610 kVA × 1
  - Unit 2: 500 kVA × 1
  - Unit 3: 500 kVA × 1
  - Unit 4: 500 kVA × 1

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**Note:**

- **Unit 1**
  - Ohi Unit 1: 13 kVA
  - Ohi Unit 2: 13 kVA
  - Ohi Unit 3: 39 kVA
  - Ohi Unit 4: 39 kVA

- **Unit 2**
  - Ohi Unit 1: 149 kVA
  - Ohi Unit 2: 422 kVA
  - Ohi Unit 3: 255 kVA
  - Ohi Unit 4: 255 kVA

- **Unit 3**
  - Ohi Unit 1: 610 kVA
  - Ohi Unit 2: 436 kVA
  - Ohi Unit 3: 316 kVA
  - Ohi Unit 4: 316 kVA

- **Unit 4**
  - Ohi Unit 1: 552 kVA
  - Ohi Unit 2: 403 kVA
  - Ohi Unit 3: 362 kVA
  - Ohi Unit 4: 362 kVA

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- **Enhanced radiation protective suits, etc.**
  - Already completed around fiscal 2017.
- **Development of high-level radiation protective suits, personal dosimeters, and full-scale masks.**
  - The system already completed for securing personnel other than radiation control personnel and extending a helping hand to services such as data entry.
- **Deployment of heavy machinery**
  - A wheel loader (maximum breakout force: approx. 13.6 tons) already deployed.
- **Power source vehicle**
  - Unit 1: 610 kVA × 1
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  - Unit 3: 500 kVA × 1
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  - Unit 3: 500 kVA × 1
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  - Unit 1: 610 kVA × 1
  - Unit 2: 500 kVA × 1
  - Unit 3: 500 kVA × 1
  - Unit 4: 500 kVA × 1
<table>
<thead>
<tr>
<th>Location</th>
<th>Reactor Type</th>
<th>Unit 1</th>
<th>Unit 2</th>
<th>Unit 3</th>
<th>Unit 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chugoku</td>
<td>BWR</td>
<td>141 kVA</td>
<td>290 kVA</td>
<td>511 kVA</td>
<td>50 kVA</td>
</tr>
<tr>
<td>Shimane</td>
<td>PHS, paging device</td>
<td>141 kVA</td>
<td>290 kVA</td>
<td>511 kVA</td>
<td>50 kVA</td>
</tr>
<tr>
<td>Shikoku</td>
<td>Ikata</td>
<td>145 kVA</td>
<td>137 kVA</td>
<td>93 kVA</td>
<td>29 kVA</td>
</tr>
</tbody>
</table>

**Improvement of operating procedures**
- Already improved
- Improving
- Power source vehicle (already prepared through emergency safety measures)
- Power supply (already provided through emergency safety measures)
- Securing power supply

**Systems**
- Battery-type, and satellite phones already deployed.
- In light of flooding caused by tsunami, the extension exchange and the power supply will be moved to a height (to be completed around FY 2017).
- Be completed at the end of June, 2011

**Personnel**
- Providing training to personnel other than radiation control personnel.
- The system already completed for personnel other than radiation control personnel and extending a helping hand to services such as data entry.
- Equipment already prepared.
- Ensuring power supply for annular operation by means of a power source vehicle (already provided).

**Security**
- Materials and equipment already deployed to enable drilling work on the ceiling of the reactor building. Procedures have already been completed for drilling work on the ceiling of the reactor building.
- Installation of a venting unit at the top of the reactor building and the hydrogen detector (to be completed in fiscal 2012)
- A wheel loader (maximum breakout force: approx. 6.4 tons) already deployed.

**Power**
- 258 kVA
- 302 kVA
- 500 kVA × 1
- 610 kVA × 1
<table>
<thead>
<tr>
<th>Kyushu</th>
<th>Sendai</th>
<th>Unit 1</th>
<th>Unit 2</th>
<th>PWR</th>
<th>&lt;Securing power supply&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Genkai</td>
<td></td>
<td>Unit 3</td>
<td>Unit 4</td>
<td></td>
<td>&lt;Alt. power source vehicle&gt;</td>
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<td>&lt;Improvement of operating procedures&gt;</td>
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<td></td>
<td>&lt;High-level radiation protective suits, etc.&gt;</td>
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<td></td>
<td>&lt;Development of a system concerning radiation control personnel and extending a helping hand to services such as radiation measurement and data entry.&gt;</td>
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<td>&lt;Deployment of heavy machinery&gt;</td>
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<td></td>
<td>&lt;Power source vehicle&gt;</td>
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<td>&lt;Improvement of operating procedures&gt;</td>
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<td>&lt;Power source vehicle&gt;</td>
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</tbody>
</table>

- **Kyushu Genkai**:
  - Unit 1:
    - Power supply: 125 kVA
    - Development of a system concerning radiation control personnel and extending a helping hand to services such as radiation measurement and data entry.
    - Deployment of heavy machinery
  - Power source vehicle
  - Improvement of operating procedures
  - Alternate communication means
  - High-level radiation protective suits, etc.

- **Kyushu Sendai**:
  - Unit 1:
    - Power supply: 125 kVA
    - Development of a system concerning radiation control personnel and extending a helping hand to services such as radiation measurement and data entry.
    - Deployment of heavy machinery
  - Power source vehicle
  - Improvement of operating procedures
  - Alternate communication means
  - High-level radiation protective suits, etc.
<p>| Japan Atomic Power Co. | Tsuruga | Unit 1 | BWR PWR | [Unit 1] | &lt;Securing power supply&gt; | ・ Power source vehicle (already prepared through emergency safety measures) | ・ Deployment of necessary materials and equipment (to be completed at the end of December, 2011) | &lt;Improvement of operating procedures&gt; | ・ Already improved. | &lt;On-site PHS, paging device&gt; | ・ Operational for a few hours by means of storage batteries even during SBO. | &lt;Middle- and long-term countermeasures&gt; | ・ In light of flooding caused by tsunami, the on-site PHS exchange will be moved to a height (to be completed around December 2011). | &lt;Alternate communication means&gt; | ・ Transceivers and satellite phones already deployed. | ・ Battery-driven simple communication systems to be deployed (to be completed around the end of June, 2011). | &lt;High-level radiation protective suits, etc.&gt; | ・ Preparation for 10 high-level radiation protective suits to be completed around the end of July, 2011) | ・ Already agreed in writing to mutually accommodate nuclear operators with high-level radiation protective suits, personal dosimeters, and full-scale masks. | &lt;Development of a system concerning radiation control measures&gt; | ・ Securing personnel by giving training to personnel other than radiation control group members. | ・ The system already completed for securing personnel other than radiation control personnel and extending a helping hand to services such as data entry. | &lt;Development of heavy machinery&gt; | ・ A wheel loader (maximum breakout force: approx. 2.2 tons) already deployed. | Unit 1: Approx. 123 kVA Unit 2: Approx. 512 kVA | Unit 1: Approx. 48 kVA Unit 2: Approx. 7 kVA | Unit 1: Approx. 171 kVA Unit 2: Approx. 655 kVA | &lt;Power source vehicle&gt; | Unit 1: 220 kVA × 1 Unit 2: 220 kVA × 1 Backup: 800 kVA × 1 | Backup: 700 kVA × 1 | 800 kVA × 1 |
| Japan Atomic Power Co. | Tokai No. 2 | BWR | &lt;Securing power supply&gt; | ・ Power source vehicle (already prepared through emergency safety measures) | &lt;On-site PHS, paging device&gt; | ・ Operational for a few hours by means of storage batteries even during SBO. | ・ Power supply of | &lt;Alternate communication means&gt; | ・ Transceivers and satellite phones already deployed. | ・ Battery-driven | &lt;High-level radiation protective suits, etc.&gt; | ・ Preparation for 10 high-level radiation protective suits to be completed | &lt;Development of a system concerning radiation control measures&gt; | ・ Securing personnel by | &lt;Short-term countermeasures&gt; | ・ Procedures already completed for drilling work for releasing leaked hydrogen from the | &lt;Deployment of heavy machinery&gt; | ・ A wheel loader (maximum breakout force: approx. 2.8 kVA) already deployed. | Approx. 431 kVA | Approx. 118 kVA | - | Approx. 549 kVA | &lt;Power source vehicle&gt; | 700 kVA × 1 | Backup: 700 kVA × 1 | 700 kVA × 1 |</p>
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<tr>
<th>JAEA</th>
<th>Monju</th>
<th>FBR</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Improvement of operating procedures</strong> &gt;</td>
<td>Already improved.</td>
<td>Around the end of July, 2011)</td>
</tr>
<tr>
<td>The paging device is ensured thereafter by power source vehicle (already provided through emergency safety measures), etc.</td>
<td>Simple communication systems already deployed.</td>
<td>Giving training to personnel other than radiation control group members.</td>
</tr>
<tr>
<td>Already improved.</td>
<td>Around the end of August, 2011)</td>
<td>The system already completed for securing personnel other than radiation control personnel and extending a helping hand to services such as data entry.</td>
</tr>
<tr>
<td>Middle- and long-term countermeasures &gt;</td>
<td>In light of flooding caused by tsunami, the on-site PHS exchange will be moved to a height (to be completed around December 2011).</td>
<td>Middle- and long-term countermeasures &gt;</td>
</tr>
<tr>
<td>Operational for more than a few hours by means of storage batteries even during SBO.</td>
<td>Power supply ensured thereafter by power source vehicle (already provided through emergency safety measures).</td>
<td>Installation of a venting unit at the top of the reactor building (to be completed around November 2011).</td>
</tr>
<tr>
<td>Transceivers and satellite phones already deployed.</td>
<td>High-level radiation protective suits, personal dosimeters, and full-scale masks.</td>
<td>Installation of a hydrogen detector in the reactor building (to be completed in FY 2013).</td>
</tr>
<tr>
<td><strong>Power source vehicle</strong> &gt;</td>
<td>To be replaced with a newly deployed power source vehicle (around the end of August, 2011)</td>
<td><strong>Measures to prevent hydrogen explosion</strong> &gt;</td>
</tr>
<tr>
<td><strong>High-level radiation protective suits, etc.</strong></td>
<td>Preparation for 10 high-level radiation protective suits (to be completed around the end of December, 2011)</td>
<td>No zirconium is used in the fuel cladding tube and no hydrogen will be generated by the reaction of water and zirconium.</td>
</tr>
<tr>
<td><strong>Alternate communication means</strong> &gt;</td>
<td>15 lead aprons already prepared as a stopgap measure.</td>
<td>Although hydrogen is produced when sodium, a coolant, contacts concrete, countermeasures have already been taken in the design stage.</td>
</tr>
<tr>
<td>- Transceiver already deployed.</td>
<td>High-level radioactive protective suits, personal dosimeters, and full-scale masks have been secured with responses under accident-prevention agreements with other nuclear operators in the Fukui district and with assistance provided by other bases of the Agency.</td>
<td>Although hydrogen is produced by the reaction of sodium and water when the heat exchanger tube is damaged by an accident, the countermeasures of combustion treatment by leading to the sodium and water reaction product container have already been taken in (in the design stage).</td>
</tr>
<tr>
<td><strong>Deployment of heavy machinery</strong> &gt;</td>
<td>A wheel loader to be deployed (around the end of December 2011).</td>
<td>To further enhance reliability, hydrogen accumulation is to be prevented by installing exhaust ports in the reactor auxiliary building.</td>
</tr>
<tr>
<td><strong>Deployment of heavy machinery</strong> &gt;</td>
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</table>

| 483 kVA | Approx. 58 kVA | Approx. 539 kVA | Approx. 500 kVA × 1 (The current 500 kVA is to be deployed at the end of August 2011 by being replaced with 600 kVA (300 kVA × 2.) | 2 |
| Fugen (The fuel pool is objective) | ATR | <No response required> At the decommissioning stage, no response is required because:  
・ The spent fuel in the spent fuel storage pool is fully cooled down, and the loss of cooling water do not compromise the integrity of fuel;  
・ No severe accident such as core damage happens; and  
・ Even during SBO, water supply to the spent fuel storage pool and monitoring of water level, water temperature and radiation are possible outside the main control room. |  |  |  |  |  |  |  |  |  | <No response required>  
Under the decommissioning stage, no response is required because:  
・ All fuel has already been taken out of the reactor core;  
・ Even during SBO and with the loss of means of cooling, the temperature of water in the spent fuel storage pool, fuel cladding tubes and the center is low and no hydrogen will be produced by the reaction of zirconium and water; and  
・ Almost no hydrogen will be produced by radiation decomposition of water in the spent fuel storage pool. | Approx. 1.0 kVA (for manual operation)  
Materials and equipment, including water supply to the spent fuel storage pool and monitoring, are transportable by human power, and it is unnecessary to deploy heavy machinery for clearing rubble. However, tools for manual operation will be prepared in order to clear obstacles to supply routes and to secure working space. | Approx. 1.0 kVA |  |  |  |