**Progress milestone dates are defined as follows:**
**Removal: The date when an equipment is removed**
**Entry to power station: The date when an equipment is carried into the relevant building within the premises after repair/production**
**Installation: The date when all the equipments are installed on the mount**
**Function check: The date when an equipment is checked and confirmed that the unit is recovered and functions as a system**
**(e.g.) For power panels, the date when they start receiving power supply; for facilities, the date when trial running after system recovery (except for power supply) is conducted and confirmed that there is no problem; etc.**
**Switch to permanent installation: The date of switching from temporary installation to permanent installation (mainly for power supply)**
**Planned completion of permanent installation: Planned date when permanent installation is completed**
**(The completion date for equipments that have already completed the permanent installation)**

# Fukushima Daini Nuclear Power Station: Progress Status Based on the Recovery Plan
# (As of the End of November 2012)

## Unit 1 (1/2)

Legend: : Underway, inspection, repair : Completed : Not started : Outside of the scope
Write the date when finished (completed) : Updated from the previous monthly report

| Equipment | | | Work type | Removal | Entry to power station | Installation | Function check | Switch to permanent installation | Planned completion of permanent installation | Internal inspection |
|---|---|---|---|---|---|---|---|---|---|---|
| 6.9 kV power system | | C system | New production of power panel (M/C 1C) | 2011/10/31 | 2012/3/15 | 2012/3/28 | 2012/9/27 | | 2012/9/27 | |
| | | H system | New production of power panel (M/C 1HPCS) | 2012/8/29 | 2012/10/24 | 2012/11/1 | | | 2012 2nd half | |
| 480 V power system | | C-1 system | New production of power panel (P/C 1C-1) | 2011/12/7 | 2012/4/13 | 2012/4/19 | 2012/10/29 | | 2012/10/29 | |
| | | C-2 system | New production of power panel (P/C 1C-2) | 2011/11/11 | 2012/7/3 | 2012/7/10 | | | 2012 2nd half | |
| | | D-2 system | New production of power panel (P/C 1D-2) | 2011/12/14 | 2012/6/12 | 2012/6/18 | | | 2012 2nd half | |
| Emergency diesel generator | Control panel and related equipment | A system | New production | 2012/8/2 | 2012/9/21 | 2012/10/1 | | | 2012 2nd half | |
| | Power generator | | New production & repair | 2011/8/29 | 2012/8/20 | 2012/8/31 | | | 2012 2nd half | |
| | Diesel engine | | Repair | | | | | | 2012 2nd half | |
| | Auxiliary facility | | New production & repair | 2012/1/23 | | | | | 2012 2nd half | |
| | Control panel and related equipment | H system | New production | 2011/11/15 | 2012/11/5 | 2012/11/9 | | | 2012 2nd half | |
| | Power generator | | New production & repair | 2011/10/19 | 2012/10/18 | 2012/11/1 | | | 2012 2nd half | |
| | Diesel engine | | Repair | | | | | | 2012 2nd half | |
| | Auxiliary facility | | New production & repair | 2012/1/23 | | | | | 2012 2nd half | |
| DC power supply | Battery charger | H system | New production | 2011/9/16 | | | | | 2012 2nd half | |
| | Battery | | New production | 2011/6/3 | | | | | 2012 2nd half | |
| Seismometer | | | New production & replacement | 2012/8/3 | 2012/6/1 | 2012/6/13 | 2012/8/6 | | 2012/8/6 | 2012/11/27 |
| Low-pressure core spray system | | | Recovery of high-voltage power supply (M/C 1C) system and cables | | | | | | 2012 2nd half | |

# Fukushima Daini Nuclear Power Station: Progress Status Based on the Recovery Plan
# (As of the End of November 2012)

## Unit 1 (2/2)

Legend: : Underway, inspection, repair : Completed : Not started : Outside of the scope
Write the date when finished (completed) : Updated from the previous monthly report

| Equipment | | Work type | Removal | Entry to power station | Installation | Function check | Switch to permanent installation | Planned completion of permanent installation | Internal inspection |
|---|---|---|---|---|---|---|---|---|---|
| Residual heat removal system | A system | Recovery of high-voltage power supply (M/C 1C) system and cables | | | | 2011/11/17 | | 2012 2nd half | |
| | C system | Recovery of high-voltage power supply (M/C 1C) system and cables | | | | 2012/10/22 | 2012/10/22 | 2012/10/22 | |
| Residual heat removal system cooling system | A system | Recovery of power supply (P/C 1C-2) system and cables | | 2011/10/26 | 23.10.27 | 2011/11/9 | | 2012 2nd half | |
| | B system | Recovery of power supply (P/C 1D-2) system and cables | | 2011/9/20 | 2011/9/21 | 2011/9/26 | | 2012 2nd half | |
| | C system | Recovery of power supply (P/C 1C-2) system and cables | | 2012/5/22 | 2012/5/22 | 2012/7/24 | | 2012 2nd half | |
| | D system | Recovery of power supply (P/C 1D-2) system and cables | | 2011/9/20 | 2011/9/20 | 2012/3/15 | | 2012 2nd half | |
| Residual heat removal system cooling seawater system | A system | Recovery of power supply (P/C 1C-2) system and cables | | 2011/8/5 | 2011/11/2 | 2011/11/11 | | 2012 2nd half | |
| | B system | Recovery of power supply (P/C 1D-2) system and cables | | | 2012/4/5 | 2012/4/12 | | 2012 2nd half | |
| | C system | Recovery of power supply (P/C 1C-2) system and cables | | 2011/8/5 | 2012/5/15 | | | 2012 2nd half | |
| | D system | Recovery of power supply (P/C 1D-2) system and cables | | | 2012/1/6 | 2012/1/12 | | 2012 2nd half | |
| Emergency diesel generator cooling system | A system | Recovery of power supply (P/C 1C-2) system and cables | | 2011/10/26 | 2011/10/27 | 2011/11/4 | | 2012 2nd half | |
| | B system | Recovery of power supply (P/C 1D-2) system and cables | | 2011/11/22 | 2011/11/25 | 2011/11/26 | | 2012 2nd half | |
| Reactor water cleanup system | A system | Recovery of power supply (P/C 1C-1) system and cables, and permanent installation of | | | | | | 2012 2nd half | |
| | B system | Permanent installation of purge line | | | | | | 2012 2nd half | |
| High-pressure core spray system | | Recovery of high-voltage power supply (M/C 1HPCS) system and cables | | | | | | 2012 2nd half | |
| High-pressure core spray system closed cooling system | | Recovery of high-voltage power supply (M/C 1HPCS) system and cables | | | | | | 2012 2nd half | |
| High-pressure core spray system closed cooling seawater system | | Recovery of high-voltage power supply (M/C 1HPCS) system and cables | | | | | | 2012 2nd half | |
| Reactor auxiliary cooling system | A system | Recovery of power supply (P/C 1C-2) system and cables | | 2012/6/12 | 2012/6/13 | 2012/6/19 | | 2012 2nd half | |
| | B system | Recovery of power supply (P/C 1D-2) system and cables | | 2011/7/2 | 2011/7/4 | 2011/7/14 | | 2012 2nd half | |
| Condensate water makeup system | A system | Recovery of power supply (P/C 1C-1) system and cables | | | | | | 2012 2nd half | |
| Standby gas treatment system | A system | Recovery of power supply (P/C 1C-1) system and cables | | | | | | 2012 2nd half | |

* MC: Metal-Clad Switch Gear
Power panel used for in-plant high voltage circuit, which is compact storage of magnetic or vacuum circuit breaker, protective relay, and ancillary meters.

* P/C: Power Center
Power panel used for in-plant low voltage circuit, which is compact storage of air circuit breaker (ACB), protective relay, and ancillary meters.

* Purge line: Seal water line of reactor water cleanup system circulation pump

Current progress rate is 58% (Previous month: 55%)

Note: Progress rate = (Number of completion columns)/(Total columns from removal to permanent installation - Number of columns in scope) x 100

* At the internal inspection after the permanent installation, the equipments subject to the Recovery Plan will be tested.

# Fukushima Daini Nuclear Power Station: Progress Status Based on the Recovery Plan
# (As of the End of November 2012)

## Unit 2

Legend: : Underway, inspection, repair : Completed : Not started : Outside of the scope
Write the date when finished (completed) : Updated from the previous monthly report

| Equipment | | Work type | Removal | Entry to power station | Installation | Function check | Switch to permanent installation | Planned completion of permanent installation | Internal inspection |
|---|---|---|---|---|---|---|---|---|---|
| 480 V power system | C-2 system | New production of power panel (P/C 2C-2) | 2012/6/13 | 2012/9/3 | 2012/9/11 | 2012/11/12 | | 2012/11/12 | |
| | D-2 system | New production of power panel (P/C 2D-2) | 2012/7/6 | 2012/10/15 | 2012/10/29 | | | 2012 2nd half | |
| Residual heat removal system cooling system | A system | Recovery of power supply (P/C 2C-2) system and cables | | | | 2011/8/6 | 2012/11/28 | 2012/11/28 | |
| | B system | Recovery of power supply (P/C 2D-2) system and cables | | | | 2011/3/14 | | 2012 2nd half | |
| | C system | Recovery of power supply (P/C 2C-2) system and cables | | | | 2012/11/28 | 2012/11/28 | 2012/11/28 | |
| | D system | Recovery of power supply (P/C 2D-2) system and cables | | | | 2011/3/24 | | 2012 2nd half | |
| Residual heat removal system cooling seawater system | A system | Recovery of power supply (P/C 2C-2) system and cables | | 2011/7/28 | 2011/7/28 | 2011/8/6 | 2012/11/26 | 2012/11/26 | |
| | B system | Recovery of power supply (P/C 2D-2) system and cables | | 2012/3/1 | 2012/9/11 | | | 2012 2nd half | |
| | C system | Recovery of power supply (P/C 2C-2) system and cables | | 2011/8/2 | 2012/9/13 | 2012/11/29 | 2012/11/29 | 2012/11/29 | |
| | D system | Recovery of power supply (P/C 2D-2) system and cables | | 2011/9/12 | 2011/9/12 | 2011/10/12 | | 2012 2nd half | |
| Emergency diesel generator cooling system | A system | Recovery of power supply (P/C 2C-2) system and cables | | 2011/7/26 | 2011/7/26 | 2011/8/3 | 2012/11/26 | 2012/11/26 | |
| | B system | Recovery of power supply (P/C 2D-2) system and cables | | | | 2011/3/14 | | 2012 2nd half | |
| Reactor auxiliary cooling system | A system | Recovery of power supply (P/C 2C-2) system and cables | | 2012/6/5 | 2012/6/5 | 2012/6/14 | 2012/11/29 | 2012/11/29 | |
| | B system | Recovery of power supply (P/C 2D-2) system and cables | | 2011/6/28 | 2011/6/28 | 2011/7/12 | | 2012 2nd half | |
| Reactor water cleanup system | A system | Permanent installation of purge line | | | | | | 2012 2nd half | |
| | B system | Permanent installation of purge line | | | | | | 2012 2nd half | |
| High-pressure core spray system closed cooling seawater system | | New production of motor | 2011/9/2 | 2012/10/3 | 2012/10/3 | 2012/10/11 | | 2012/10/11 | |

* P/C: Power Center
Power panel used for in-plant low voltage circuit, which is compact storage of air circuit breaker (ACB), protective relay, and ancillary meters.

* Purge line: Seal water line of reactor water cleanup system circulation pump

Current progress rate is 80% (Previous month: 63%)

Note: Progress rate = (Number of completion columns)/(Total columns from removal to permanent installation - Number of columns in scope) x 100
* At the internal inspection after the permanent installation, the equipments subject to the Recovery Plan will be tested.

# Fukushima Daini Nuclear Power Station: Progress Status Based on the Recovery Plan
# (As of the End of November 2012)

## Unit 3

Legend: ■: Underway, inspection, repair ■: Completed ■: Not started ■: Outside of the scope
Write the date when finished (completed) □: Updated from the previous monthly report

| Equipment | | Work type | Removal | Entry to power station | Installation | Function check | Switch to permanent installation | Planned completion of permanent installation | Internal inspection |
|---|---|---|---|---|---|---|---|---|---|
| 480 V power system | C-2 system | New production of power panel (P/C 3C-2) | 2011/9/15 | 2012/1/26 | 2012/1/27 | 2012/8/27 | | 2012/8/27 | 2012/9/28 |
| Residual heat removal system cooling system | A system | Recovery of power supply (P/C 3C-2) system and cables | | 2011/8/2 | 2011/8/3 | 2011/8/26 | 2012/9/12 | 2012/9/12 | 2012/9/28 |
| | C system | Recovery of power supply (P/C 3C-2) system and cables | | 2011/8/29 | 2011/8/30 | 2011/9/9 | 2012/9/13 | 2012/9/13 | 2012/9/28 |
| Residual heat removal system cooling seawater system | A system | Recovery of power supply (P/C 3C-2) system and cables | | 2011/8/24 | 2011/8/24 | 2011/8/30 | 2012/9/11 | 2012/9/11 | 2012/9/28 |
| | C system | Recovery of power supply (P/C 3C-2) system and cables | | 2011/9/5 | 2011/9/7 | 2011/9/14 | 2012/9/11 | 2012/9/11 | 2012/9/28 |
| Emergency diesel generator cooling system | A system | Recovery of power supply (P/C 3C-2) system and cables | | 2011/8/2 | 2011/8/3 | 2011/8/23 | 2012/9/6 | 2012/9/6 | 2012/9/28 |
| Reactor water cleanup system | A system | Permanent installation of purge line | | | | | 2012/10/4 | 2012/10/4 | 2012/10/11 |
| | B system | Permanent installation of purge line | | | | | 2012/10/11 | 2012/10/11 | 2012/10/11 |

* P/C: Power Center
Power panel used for in-plant low voltage circuit, which is compact storage of air circuit breaker (ACB), protective relay, and ancillary meters.

* Purge line: Seal water line of reactor water cleanup system circulation pump

Restoration completed on October 11, 2012

(Progress rate: 100%)

Note: Progress rate = (Number of completion columns)/(Total columns from removal to permanent installation - Number of columns in scope) x 100
* At the internal inspection after the permanent installation, the equipments subject to the Recovery Plan will be tested.

# Fukushima Daini Nuclear Power Station: Progress Status Based on the Recovery Plan
# (As of the End of November 2012)

## Unit 4

Legend: ■: Underway, inspection, repair ■: Completed ■: Not started ■: Outside of the scope
Write the date when finished (completed) □: Updated from the previous monthly report

| Equipment | | Work type | Removal | Entry to power station | Installation | Function check | Switch to permanent installation | Planned completion of permanent installation | Internal inspection |
|---|---|---|---|---|---|---|---|---|---|
| 480 V power system | C-2 system | New production of power panel (P/C 4C-2) | 2011/9/7 | 2011/12/2 | 2011/12/9 | 2012/1/30 | | 2012/1/30 | 2010/5/15 |
| | D-2 system | New production of power panel (P/C 4D-2) | 2011/9/30 | 2012/2/28 | 2012/3/8 | 2012/3/23 | | 2012/3/23 | 2010/5/16 |
| Residual heat removal system cooling system | A system | Recovery of power supply (P/C 4C-2) system and cables | | 2011/7/8 | 2011/7/8 | 2011/7/25 | 2012/2/24 | 2012/2/24 | 2010/5/15 |
| | B system | Recovery of power supply (P/C 4D-2) system and cables | | 2011/7/5 | 2011/7/5 | 2011/7/7 | 2012/4/11 | 2012/4/11 | 2010/5/16 |
| | C system | Recovery of power supply (P/C 4C-2) system and cables | | 2012/4/19 | 2012/4/19 | 2012/4/26 | 2012/4/26 | 2012/4/26 | 2010/5/15 |
| | D system | Recovery of power supply (P/C 4D-2) system and cables | | 2011/9/5 | 2011/9/5 | 2011/9/29 | 2012/4/12 | 2012/4/12 | 2010/5/16 |
| Residual heat removal system cooling seawater system | A system | Recovery of power supply (P/C 4C-2) system and cables | | 2011/7/27 | 2011/7/27 | 2011/8/2 | 2012/2/24 | 2012/2/24 | 2010/5/15 |
| | B system | Recovery of power supply (P/C 4D-2) system and cables | | 2011/9/7 | 2011/9/7 | 2011/9/21 | 2012/4/11 | 2012/4/11 | 2010/5/16 |
| | C system | Recovery of power supply (P/C 4C-2) system and cables | | 2011/7/27 | 2012/4/18 | 2012/4/26 | 2012/4/26 | 2012/4/26 | 2010/5/15 |
| | D system | Recovery of power supply (P/C 4D-2) system and cables | | 2012/4/17 | 2012/4/17 | 2012/4/25 | 2012/4/25 | 2012/4/25 | 2010/5/16 |
| Emergency diesel generator cooling system | A system | Recovery of power supply (P/C 4C-2) system and cables | | 2011/7/8 | 2011/7/8 | 2011/7/21 | 2012/2/24 | 2012/2/24 | 2010/5/15 |
| | B system | Recovery of power supply (P/C 4D-2) system and cables | | | | 2011/3/14 | 2012/4/12 | 2012/4/12 | 2010/5/16 |
| Reactor water cleanup system | A system | Permanent installation of purge line | | | | | 2012/5/11 | 2012/5/11 | 2010/5/17 |
| | B system | Permanent installation of purge line | | | | | 2012/5/17 | 2012/5/17 | 2010/5/17 |

* P/C: Power Center
Power panel used for in-plant low voltage circuit, which is compact storage of air circuit breaker (ACB), protective relay, and ancillary meters.

* Purge line: Seal water line of reactor water cleanup system circulation pump

Restoration completed on May 17, 2012 (Progress rate: 100%)

Note: Progress rate = (Number of completion columns)/(Total columns from removal to permanent installation - Number of columns in scope) x 100

**Fukushima Daini Nuclear Power Station　Progress status based on Recovery Plan (As of the end of November 2012)**

# Common facilities

Legend: : Underway, inspection, repair : Completed : Not started : Outside of the scope
Write the date when finished (completed) : Updated from the previous monthly report

| Equipment | | Work type | Removal | Entry to power station | Installation | Function check | Switch to permanent installation | Planned completion of permanent installation | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| Outlet monitor | Units 1& 2 | New production & replacement | | | | | | 2012 2nd half | |
| | Units 3& 4 | New production & replacement | | 2012/9/4 | 2012/9/11 | 2012/9/21 | 2012/9/21 | 2012/9/21 | 2012/9/21 |

Current progress rate is 50% (Previous month: 50%)

Note: Progress rate = (Number of completion columns)/(Total columns from removal to permanent installation - Number of columns in scope) x 100

* At the internal inspection after the permanent installation, the equipments subject to the Recovery Plan will be tested.