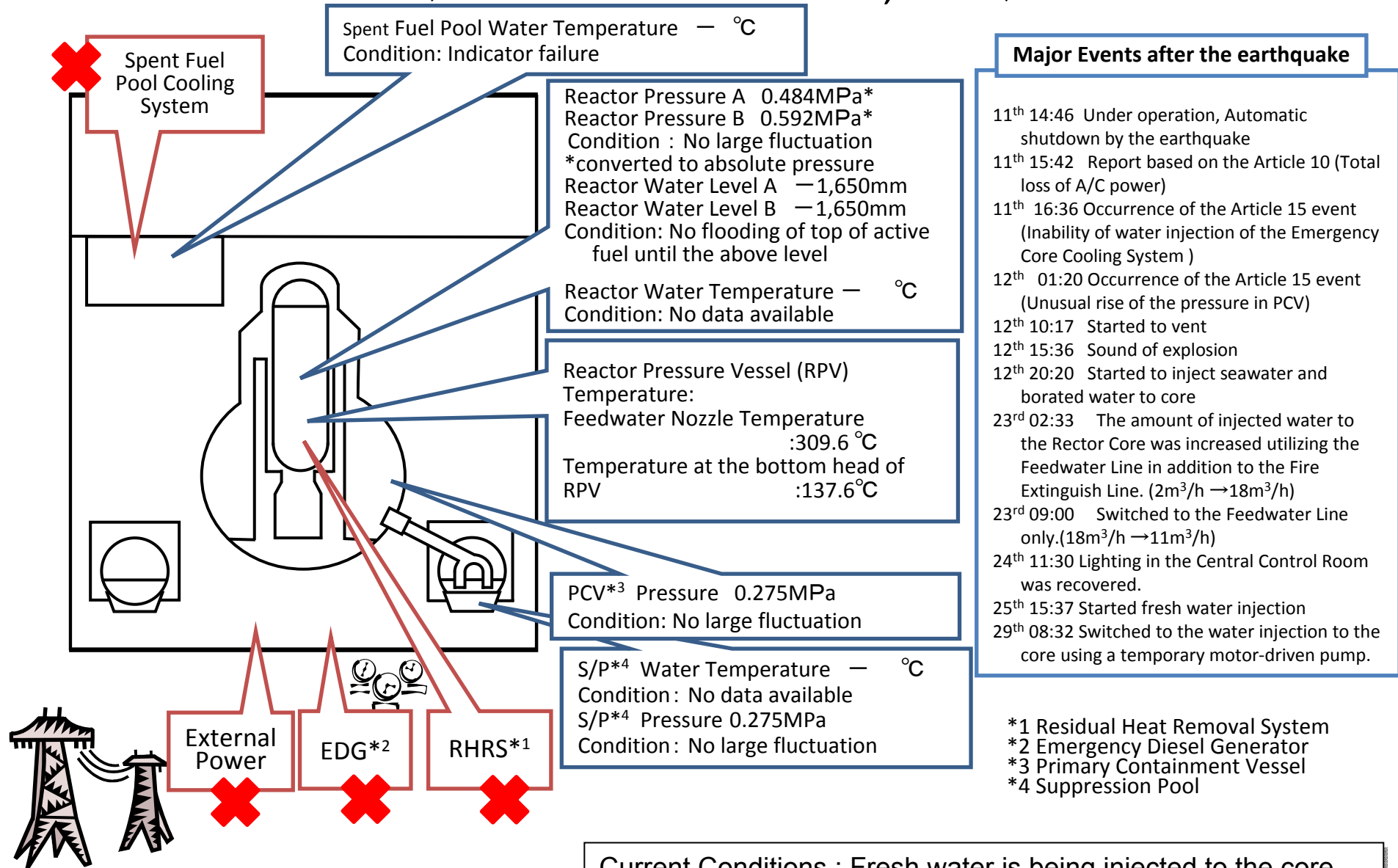


# Conditions of Fukushima Dai-ichi Nuclear Power Station **Unit 1** (As of 12:00 March 29th, 2011)



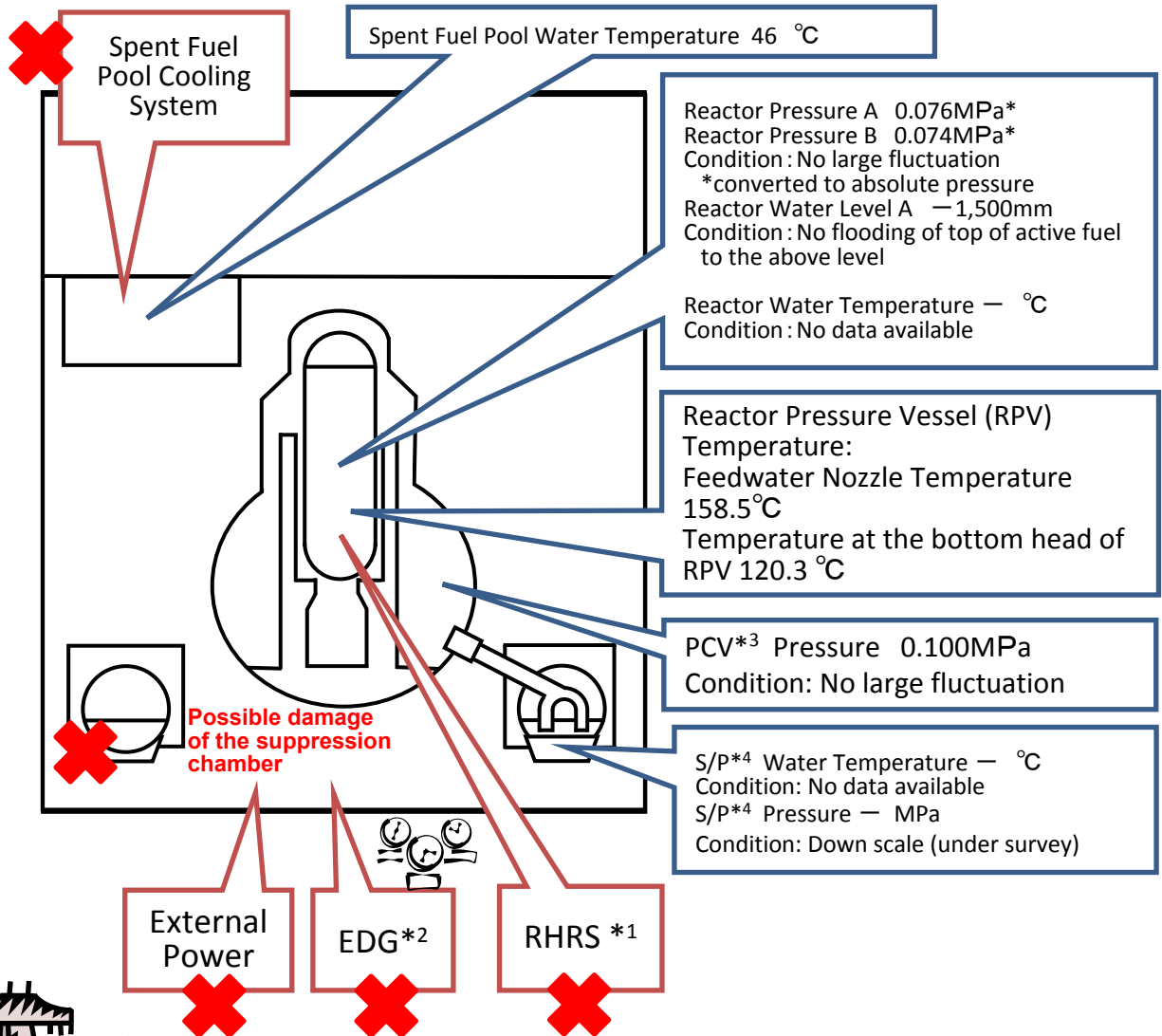
**Current Conditions : Fresh water is being injected to the core**

# Conditions of Fukushima Dai-ichi Nuclear Power Station **Unit 2**

(As of 12:00 March 29th, 2011)

## Major Events after the earthquake

- 11<sup>th</sup> 14:46 Under operation, Automatic shutdown by the earthquake
- 11<sup>th</sup> 15:42 Report based on the Article 10 (Total loss of A/C power)
- 11<sup>th</sup> 16:36 Occurrence of the Article 15 event (Inability of water injection of the Emergency Core Cooling System )
- 13<sup>th</sup> 11:00 Started to vent
- 14<sup>th</sup> 13:25 Occurrence of the Article 15 event (Loss of reactor cooling functions)
- 14<sup>th</sup> 16:34 Started to inject water to the Reactor Core
- 14<sup>th</sup> 22:50 Occurrence of the Article 15 event (Unusual rise of the pressure in PCV)
- 15<sup>th</sup> 00:02 Started to vent
- 15<sup>th</sup> 06:10 Sound of explosion
- 15<sup>th</sup> around 06:20 Possible damage of the suppression chamber
- 20<sup>th</sup> 15:05~17:20 Approximately 40 ton seawater injection to the Spent Fuel Pool (SFP) via the Fuel Pool Cooling Line (FPC)
- 20<sup>th</sup> 15:46 Power Center received electricity.
- 21<sup>st</sup> 18:22 White smoke generated. The smoke died down and almost invisible at 07:11 March 22<sup>nd</sup>.
- 22<sup>nd</sup> 16:07 Injection of around 18 tons of seawater to SFP
- 25<sup>th</sup> 10:30~12:19 Sea water injection to SFP via FPC
- 26<sup>th</sup> 10:10 Started to inject fresh water to the Reactor Core
- 26<sup>th</sup> 16:46 Lighting in the Central Control Room was recovered.
- 27<sup>th</sup> 18:31 Switched to the water injection to the core using a temporary motor-driven pump.

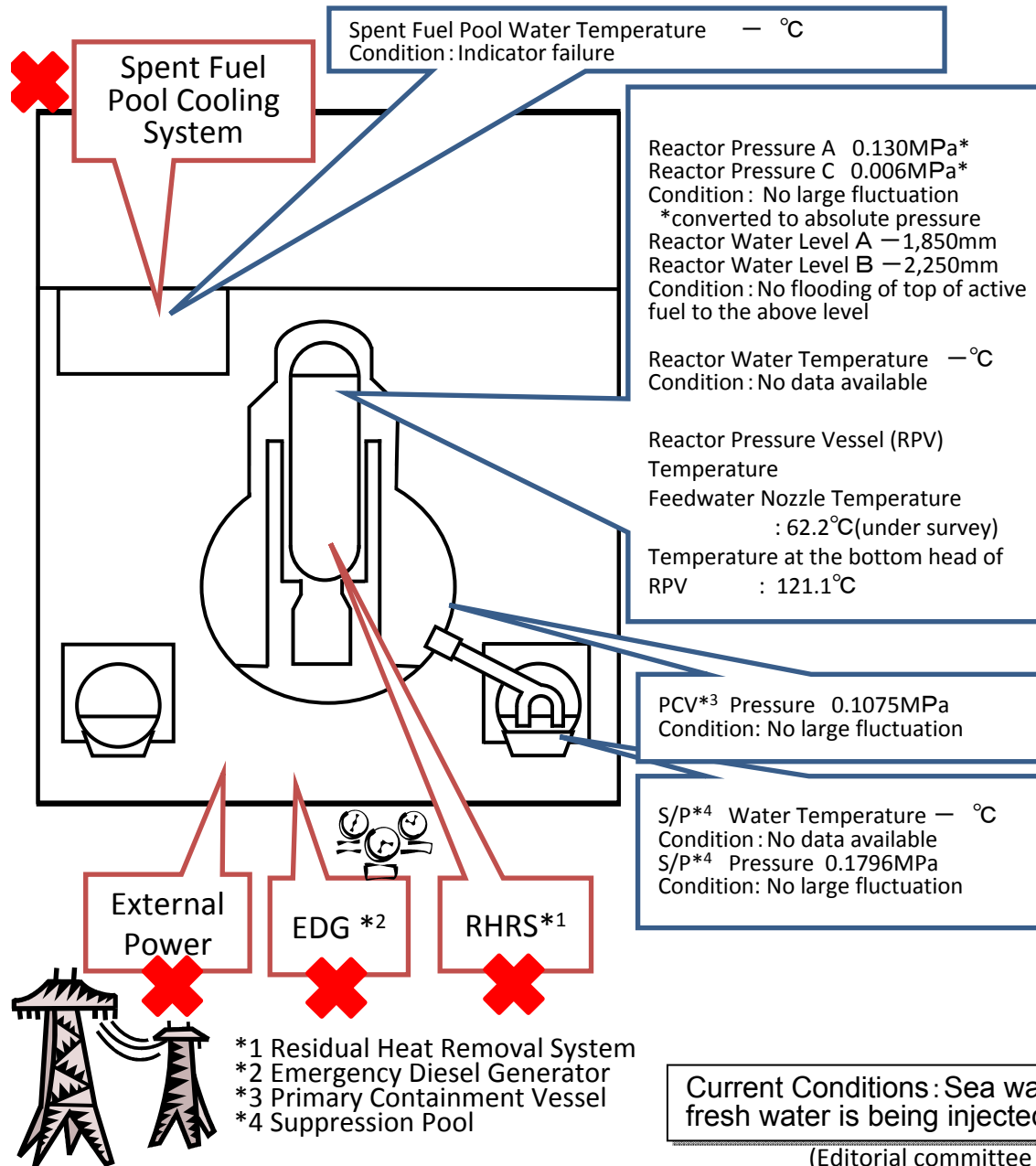


\*1 Residual Heat Removal System  
 \*2 Emergency Diesel Generator  
 \*3 Primary Containment Vessel  
 \*4 Suppression Pool

**Current Conditions : Sea water is being injected to the Spent Fuel Pool and fresh water is being injected to the core**

# Conditions of Fukushima Dai-ichi Nuclear Power Station Unit 3 (As of 12:00 March 29th, 2011)

## Major Events after the earthquake

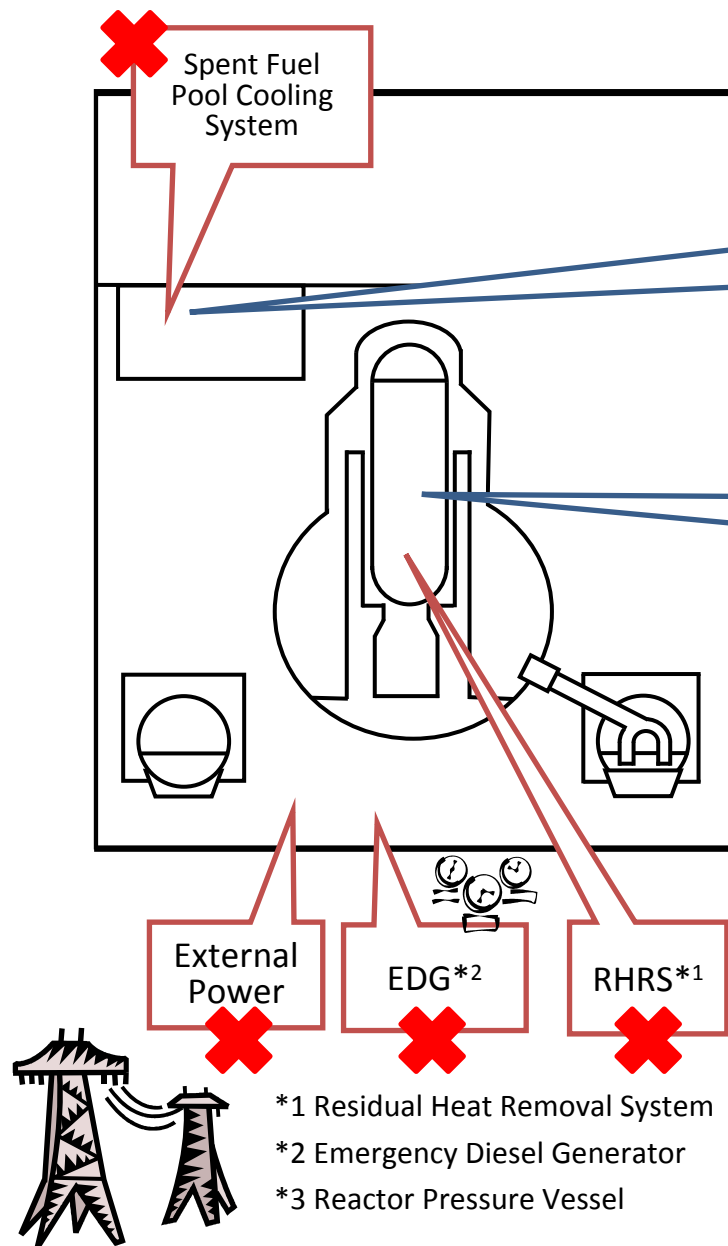


- 11<sup>th</sup> 14:46 Under operation, Automatic shutdown by the earthquake
- 11<sup>th</sup> 15:42 Report based on the Article 10 (Total loss of A/C power)
- 13<sup>th</sup> 05:10 Occurrence of the Article 15 event (Inability of water injection of the Emergency Core Cooling System)
- 13<sup>th</sup> 08:41 Started to vent
- 13<sup>th</sup> 13:12 Started to inject seawater and borated water to core
- 14<sup>th</sup> 05:20 Started to vent
- 14<sup>th</sup> 07:44 Occurrence of the Article 15 event (Unusual rise of the pressure in PCV)
- 14<sup>th</sup> 11:01 Sound of explosion
- 16<sup>th</sup> around 08:30 White smoke generated.
- 17<sup>th</sup> 09:48~10:01 Water discharge by the helicopters of Self-Defense Force
- 17<sup>th</sup> 19:05~19:15 Water spray from the ground by High pressure water-cannon trucks of Police
- 17<sup>th</sup> 19:35~20:09 Water spray from the ground by fire engines of Self-Defense Force
- 18<sup>th</sup> before 14:00~14:38 Water spray from the ground by 6 fire engines of Self-Defense Force
- 18<sup>th</sup> ~14:45 Water spray from the ground by a fire engine of the US Military
- 19<sup>th</sup> 00:30 ~01:10 Water spray by Hyper Rescue Unit of Tokyo Fire Department
- 19<sup>th</sup> 14:10 ~ 20<sup>th</sup> 03:40 Water spray by Hyper Rescue Unit of Tokyo Fire Department
- 20<sup>th</sup> 11:00 Pressure of PCV rose(320kPa).Afterward fell.
- 20<sup>th</sup> 21:36 ~ 21<sup>st</sup> 03:58 Water spray by Hyper Rescue Unit of Tokyo Fire Department
- 21<sup>st</sup> about 15:55 Grayish smoke generated and was confirmed to be died down at 17:55.
- 22<sup>nd</sup> 15:10 ~ 16:00 Water spray by Hyper Rescue Unit of Tokyo Fire Department and Osaka City Fire Bureau.
- 22<sup>nd</sup> 22:46 Lighting in the Central Control Room was recovered.
- 23<sup>rd</sup> 11:03 ~13:20 Injection of about 35ton of sea water to the Spent Fuel Pool (SFP) via the Fuel Pool Cooling Line (FPC)
- 23<sup>rd</sup> around 16:20 Black smoke generated and was confirmed to died down at around 23:30 and 24<sup>th</sup> 04:50.
- 24<sup>th</sup> 05:35~16:05 Approximately 120 ton sea water injection to SFP via FPC
- 25<sup>th</sup> 13:28~16:00 Water spray by Kawasaki City Fire Bureau supported by Tokyo Fire Department
- 25<sup>th</sup> 18:02 Started fresh water injection to the core
- 27<sup>th</sup> 12:34~14:36 Water spray by Concrete Pump Truck
- 28<sup>th</sup> 20:30 Switched to the water injection to the core using a temporary motor-driven pump.
- 29<sup>th</sup> 14:17 Started to spray freshwater by Concrete Pump Truck

Current Conditions: Sea water is being injected to the Spent Fuel Pool and fresh water is being injected to the core

# Conditions of Fukushima Dai-ichi Nuclear Power Station **Unit 4**

(As of 12:00 March 29th, 2011)



\*1 Residual Heat Removal System  
 \*2 Emergency Diesel Generator  
 \*3 Reactor Pressure Vessel

In periodic inspection outage

Spent Fuel Pool Water Temperature - °C  
 Condition: Indicator failure

No fuel is inside the reactor core

External Power

EDG\*2

RHRS\*1

## Major events after the earthquake

- In periodic inspection outage when the earthquake occurred.
- 14<sup>th</sup> 04:08 Water temperature in the Spent Fuel Pool (SFP), 84°C
- 15<sup>th</sup> 06:14 Partial damage of wall in the 4<sup>th</sup> floor confirmed
- 15<sup>th</sup> 09:38 Fire occurred in the 3<sup>rd</sup> floor. (12:25 extinguished)
- 16<sup>th</sup> 05:45 Fire occurred. TEPCO couldn't confirm any fire on the ground. (06:15)
- 20<sup>th</sup> 08:21~09:40 Water spray over SFP by Self-Defense Force
- 20<sup>th</sup> around 18:30~19:46 Water spray over SFP by Self-Defense Force
- 21<sup>st</sup> 06:37~08:41 Water spray over SFP by Self-Defense Force
- 21<sup>st</sup> about 15:00 Work for laying cable to Power Center was completed.
- 22<sup>nd</sup> 10:35 Power Center received electricity
- 22<sup>nd</sup> 17:17~20:32 Water spray by Concrete Pump Truck
- 23<sup>rd</sup> 10:00~13:02 Water spray by Concrete Pump Truck
- 24<sup>th</sup> 14:36~17:30 Water spray by Concrete Pump Truck
- 25<sup>th</sup> 06:05~10:20 Sea water injection to SFP via the Fuel Pool Cooling Line (FPC)
- 25<sup>th</sup> 19:05~22:07 Water spray by Concrete Pump Truck
- 27<sup>th</sup> 16:55~19:25 Water spray by Concrete Pump Truck
- 29<sup>th</sup> 11:50 Lighting in the Central Control Room was recovered.

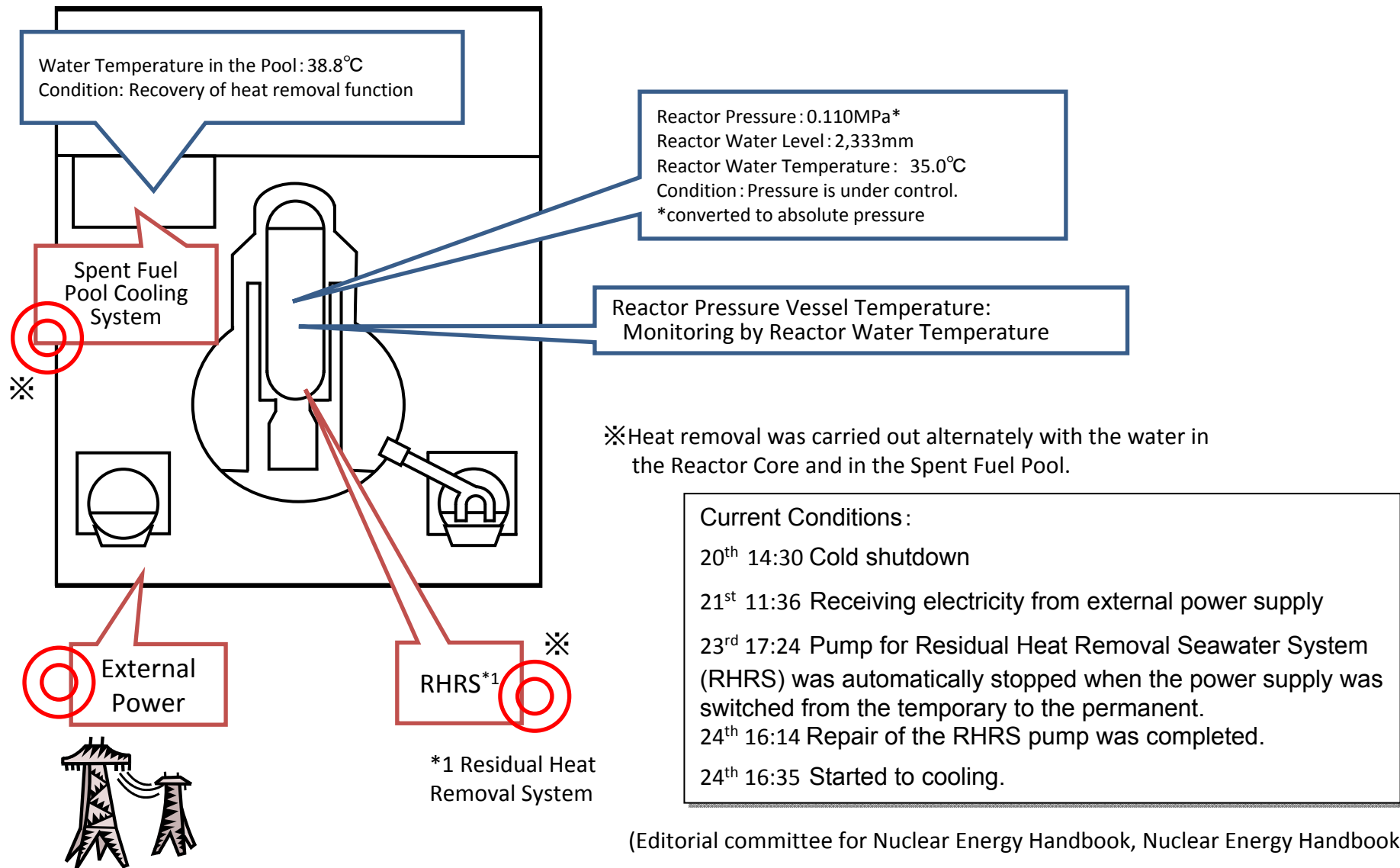
**Current Conditions : No fuel is in RPV\*3.  
 Sea water is being injected to the Spent Fuel Pool.**

(Editorial committee for Nuclear Energy Handbook, Nuclear Energy Handbook)

# Conditions of Fukushima Dai-ichi Nuclear Power Station **Unit 5**

## (As of 12:00 March 29th, 2011)

**In periodic inspection outage**



# Conditions of Fukushima Dai-ichi Nuclear Power Station **Unit 6**

(As of 12:00 March 29th, 2011)

In periodic inspection outage

